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E-Pulse Cordless Nutrunner

Product Instructions

Model
BLRTA045-3990-10S

Part number
6151661870

Download the latest version of this document at
http://www.desouttertools.com/info/6159929740_EN

⚠ 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

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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.

Warranty

- Product warranty will expire 12 months after the product is first taken into use, but will in any case expire at the latest 13 months after delivery.
- 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 tools 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 Desoutter 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 only performed in Desoutter workshops or by Certified Service Partners.

Desoutter offers extended warranty and state of the art preventive maintenance through its Tool Care contracts. For further information contact your local Service representative.

For electrical motors:

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

Website

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

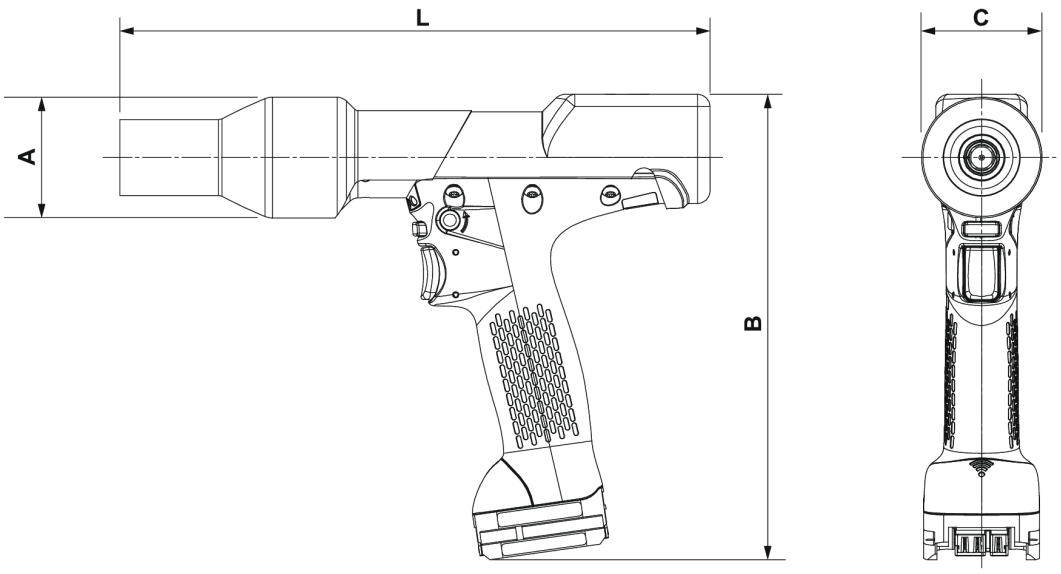
Please visit: www.desouttertools.com.

Information about spare parts

Exploded views and spare parts lists are available in Service Link at www.desouttertools.com.

Dimensions

ⓘ Dimensions are given for the tool equipped with its protective cover.



	mm	in.
L (BLRTx-045)	251	9.9
A	55	2.1
B	209	8.23
C	54	2.13

CAD files

For information about the dimensions of a product, see the Dimensional drawings archive:

https://www.desouttertools.com/resource-centre

Overview

General overview

BLRTA tools are e-Pulse cordless pistol nutrunners.

They are hand-held by the operator and powered by a Desoutter battery pack.

On delivery, the tool display is protected by a password.

Tools are delivered with 6 Psets which are configurable from the tool display or from CVI CONFIG.

The last 100 results can be displayed on the computer for analysis with CVIMONITOR.
The last 1000 results can be displayed on the computer for analysis with CVI ANALYZER.

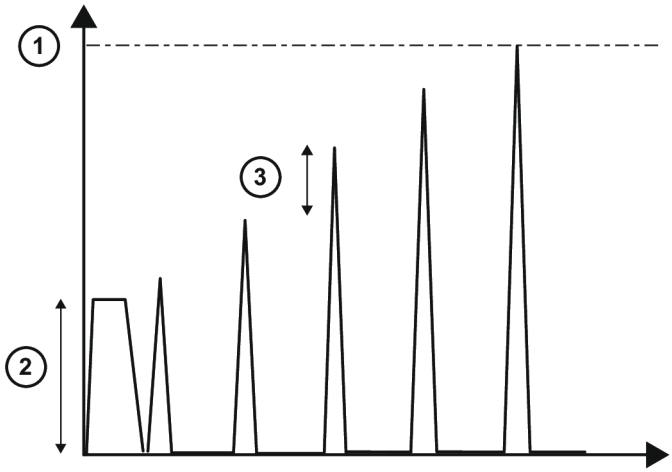
Tool settings can be done via the tool display.

Tool maintenance can be done with eDOCK and CVIMONITOR software.

The setup will mainly depend on the joint hardness and the targeted accuracy.

A pulse tightening is based on a single step including:
- a Rundown speed phase (continuous)
- a Final speed phase (pulse)

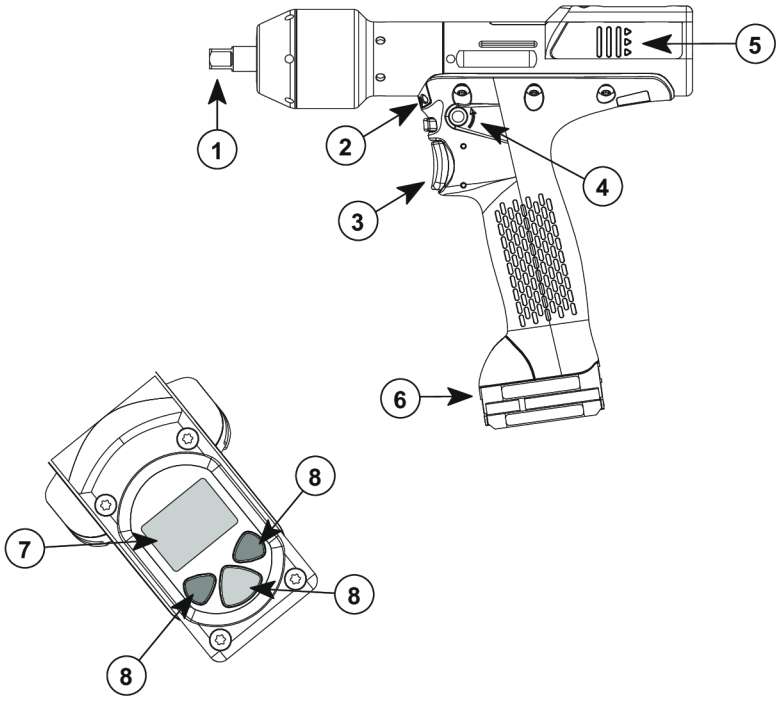
The Rundown speed phase has an impact on the first peak amplitude.
The pulse amplitude defines the pulse power. It has an impact on the torque step between two consecutive pulses.



1	Target torque
2	Rundown speed
3	Pulse amplitude

Product description

ⓘ In the following illustration, the tool is shown without its protective cover.



1	Output drive
2	Front light
3	Trigger
4	Reverse button
5	Reporting LEDs
6	Battery pack footprint
7	Display
8	Programming buttons

Technical data

Voltage (V)

18 V ⎓ or 36 V ⎓

Power consumption

500 W

Output drive

Model	Type
BLRTx-10S	Sq. 3/8"
BLRTx-4Q	Hex. 1/4" F

ⓘ BLRTx stands for BLRTA/BLRTC.

Output retaining type

Model	Type
BLRTx-10S	through hole
BLRTx-4Q	quick-change chuck

ⓘ BLRTx stands for BLRTA/BLRTC.

Torque range (Nm)

Model	Min. / Max.
BLRTx045-x	15 / 45

ⓘ BLRTx stands for BLRTA/BLRTC.

Torque range (ft.lb)

Model	Min. / Max.
BLRTx045-x	11.60 / 33.19

ⓘ BLRTx stands for BLRTA/BLRTC.

Rated speed (rpm)

ⓘ BLRTx stands for BLRTA/BLRTC.

18 V or 36 V battery pack

Model	
BLRTx045-x	3,990

Weight

Model	(kg)	(lb)
BLRTC-045-3990-10S	1.337	2.95

ⓘ The weight is given without the battery pack and without the protective cover.

Storage and use conditions

Storage temperature	-20 to +70 °C (-4 to +158 F)
Operating temperature	0 to 45 °C (32 to 113 F)
Storage humidity	0-95 % RH (non-condensing)
Operating humidity	0-90 % RH (non-condensing)
Altitude up to	2000 m (6562 feet)
Usable in Pollution degree 2 environment	
Indoor use only	

Accessories

Optional accessories

eDOCK	6158119760

Required accessories

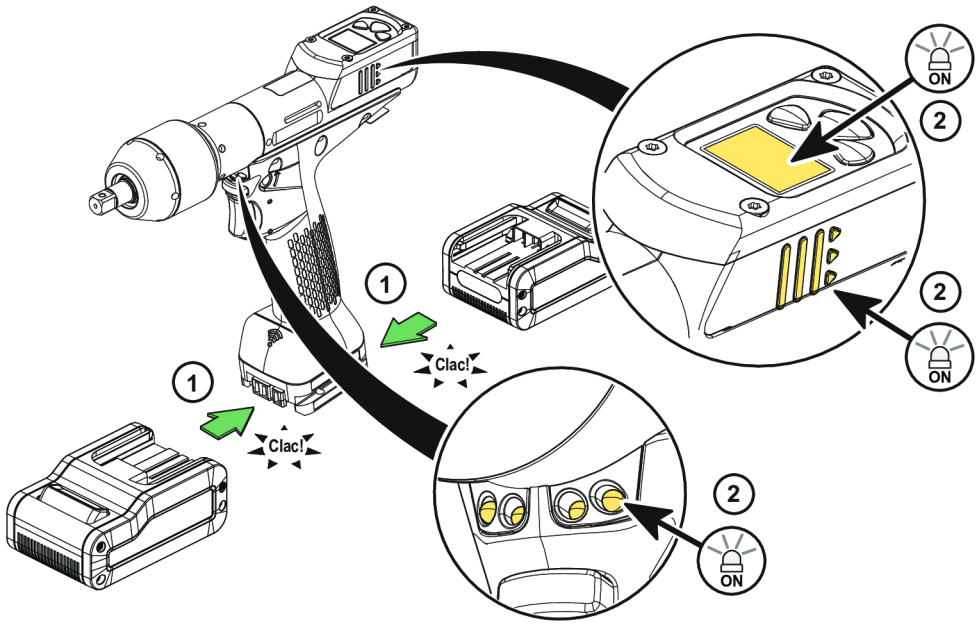
Battery pack 18 V 2.5 Ah	6158132660
Battery pack 36 V 2.5 Ah	6158132670
Battery pack charger	6158132700

Installation

Installation Instructions

Inserting the battery pack

ⓘ In the following illustration, the tool is shown without its protective cover.



Insert the battery pack in front or behind the tool until a locking sound can be clearly heard.

There is no ON/OFF switch: the tool is ready to operate as soon as a battery pack is mounted.

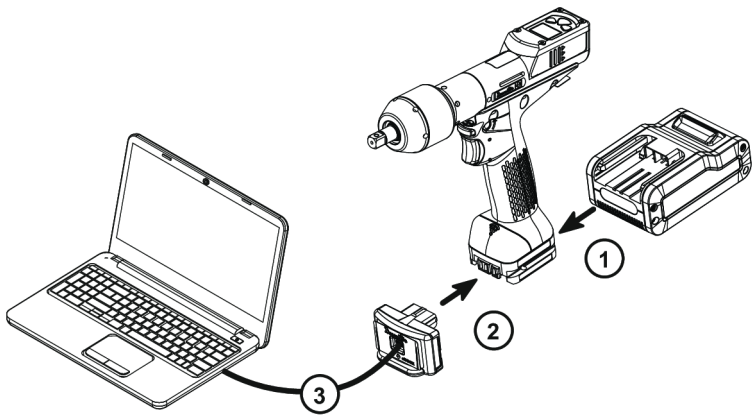
When the tool is powered on, tool LEDs are blinking.

NOTICE Usage recommendations for battery packs
Ensure a longer service life of the battery pack.

- ► Unplug the battery pack when the tool is not used.

  Do not leave the battery pack on the charger when the charger power supply is off.

How to connect the tool to CVIMONITOR



Plug a battery pack to the tool.

Connect eDOCK to the tool and to the USB port of the computer.

ⓘ Respect the connection order.

Launch CVIMONITOR from the computer desktop.

Click **Tool** in the top bar.

Click **Select** to select the tool.

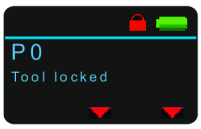
How to install optional accessories

Refer to the user manual dedicated to the accessory available at https://www.desouttertools.com/resource-centre.

Operation

Configuration Instructions

How to configure the tool



Icons and buttons

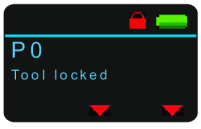
	The password is enabled.
	The password is disabled.
	Press the button "Validate/Run reverse".
	Press the right button.
	Press the left button.
	"Validate/Run reverse" button
	Right button
	Left button
	Validate
	Save
	Quit
	Pset
	The sound is disabled.
	The sound is enabled.
	The battery pack is full.
	The battery pack is low.

How to disable the passwords

ⓘ On delivery, passwords are enabled (**1 by default**).

Pset and Maintenance passwords are used to protect settings against hazardous changes.

A red padlock is displayed on the top line of the main screen.



	Press this button during 2 seconds.
	Press this button to reach **Configuration**.

Go to **Enter password**, then **Pset password**, use the buttons to display "1", save and and validate. The red padlock turns green.

ⓘ The procedure is the same to disable the Maintenance password.

How to set up new passwords

ⓘ To set new passwords, current passwords must be disabled and the green padlock displayed.

Go to the main screen.

 Press this button during 2 seconds.

 Press this button to reach **Configuration**.

Go to **Set password**, then **Pset password**, use the buttons to enter a figure from 0 to 999, save and validate.

ⓘ Setting the password to 0 will disable all password protections.

ⓘ The procedure is the same to set up a new Maintenance password.

Sound, torque unit

Sound

The tool can emit sounds to alert the operator in case of problems or events that may happen during the tightening operation.

Sounds can be set for the following topics:

- tightening out of tolerances
- calibration procedure
- preventive maintenance
- low battery
- hardware failure
- maintenance

ⓘ On tool delivery, the sound is disabled.

To enable the sound, go to the main screen.

 Press this button during 2 seconds.

 Press this button to reach **Configuration**.

Go to **Sound**, then No sound, use the buttons to save and validate.

Torque unit

The following torque units are available:

- Nm
- ft.lb
- in.lb
- kg.m
- kg.cm
- oz.in
- dNm

To change the torque unit, go to the main screen.

Press this button during 2 seconds.

Press this button to reach **Configuration**.

Go to **Torque unit**, use the buttons to select the torque unit and validate.

How to set up the reverse mode

Go to the main screen.

Press this button during 2 seconds.

Press this button to reach **Configuration**.

Go to **Reverse**.
Use the buttons to enable or disable the feature.
Select the reverse mode (alternate or once), save and validate.

How to set up the Pset

ⓘ There are 6 pre-defined Psets in the tool.
Parameters are already configured according to the tool characteristics.

Check that the Pset password is disabled.
The green padlock is displayed on the top line.

Go to the main screen.

Press this button during 2 seconds.

Press this button to reach **Pset**.

Use the buttons to navigate, save and validate.

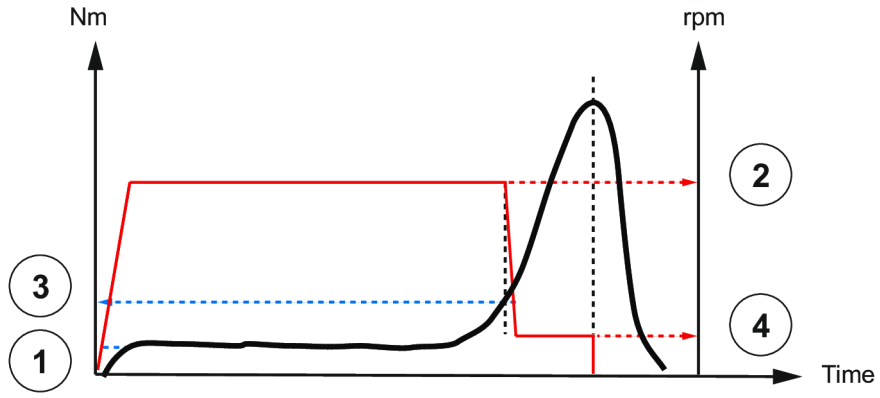
ⓘ If no action is done, the display returns to the main screen after 15 seconds and the changes will not be saved.
Pressing the trigger at that stage will cancel all modifications done.

Parameter	Description
Thread	Selection of the thread direction of the screw. CW: when operating in forward, the tool rotates clockwise. CCW: when operating in forward, the tool rotates counter-clockwise.
Tightening strategy	Torque control with angle monitoring or Angle control with angle monitoring.
Target torque	The torque value to reach.
Target angle	The angle value to reach.
Min./max. torque	Torque values which define the min./max. torque tolerances.
Min./max. angle	Angle values which define the min./max. angle tolerances.
Abort angle	Safety angle value to stop the tool.
Abort torque	Safety torque value to stop the tool.
Start torque	This is the torque value that must be reached to declare the Pset as started. Below this value, neither result or report will be generated.
Angle threshold	This is the torque threshold value used to start counting the angle.
Rundown speed	Speed applied from the start to "Downshift torque".
Downshift torque	Torque value where the speed moves from "Rundown speed" to "Downshift speed".

Parameter	Description
Final speed (or Downshift speed)	Speed applied from "Downshift torque" to the motor stop.
Max. time	30 sec by default. The tool stops when the time is reached.

Motor control

Starting at the "Start" signal, the tool runs with a programmed acceleration up to "Rundown speed".
The tool keeps running at "Rundown speed".
Once "Downshift torque" has been reached, the speed changes to "Downshift speed".



Item	Parameter	Description
1	Pset start torque	The **Pset start torque** is the torque value that must be reached to declare the Pset as started. Below this value, neither result or report will be generated.
2	Rundown speed	Speed applied from the start to "Downshift torque".
3	Downshift torque	Torque value where the speed moves from "Rundown speed" to "Downshift speed".
4	Downshift speed	Speed applied from "Downshift torque" to the motor stop.

Additional Pset parameters

Parameter	Description
Pulse threshold	Torque threshold value to switch from continuous mode to Pulse mode.
Pulse amplitude	Pulse amplitude threshold value in Pulse mode.

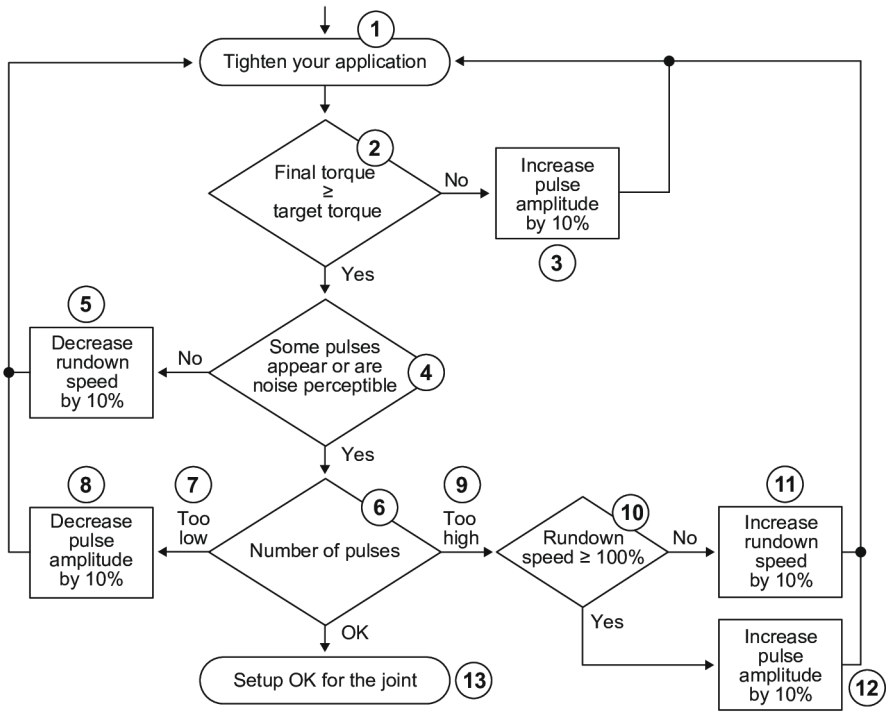
To reach the best performance, we recommend to set the **target torque (in %)** as follows:

Type of joint: hard

Parameters	20-30 Nm	30-40 Nm	40-45 Nm
Run down speed	40	40	50
Pulse amplitude	30	40	50

Type of joint: soft

Parameters	20-30 Nm	30-40 Nm	40-45 Nm
Run down speed	60	100	100
Pulse amplitude	80	100	100



1	Tighten your application
2	Final torque ≥ target torque
3	Increase Pulse amplitude by 10%
4	Some pulses appear or are noise perceptible
5	Decrease Rundown speed by 10%
6	Number of pulses
7	Too low
8	Decrease Pulse amplitude by 10%
9	Too high
10	Rundown speed ≥ 100%
11	Increase Rundown speed by 10%
12	Increase Pulse amplitude by 10%
13	Setup OK for the joint

Operating Instructions

How to use the tool

How to select the Pset to run

Go to the main screen.

Select the Pset to run.

Press this button during 2 seconds.

Press this button to reach **Pset**.

Go to **Enable**, tick the box to enable this Pset, save and validate.

Starting the tool

Fit the tool with a suitable socket.

Select the appropriate Pset.

Hold the tool by means of the handle and apply to the fastener to be tightened.

⚠ WARNING Risk Of Injury

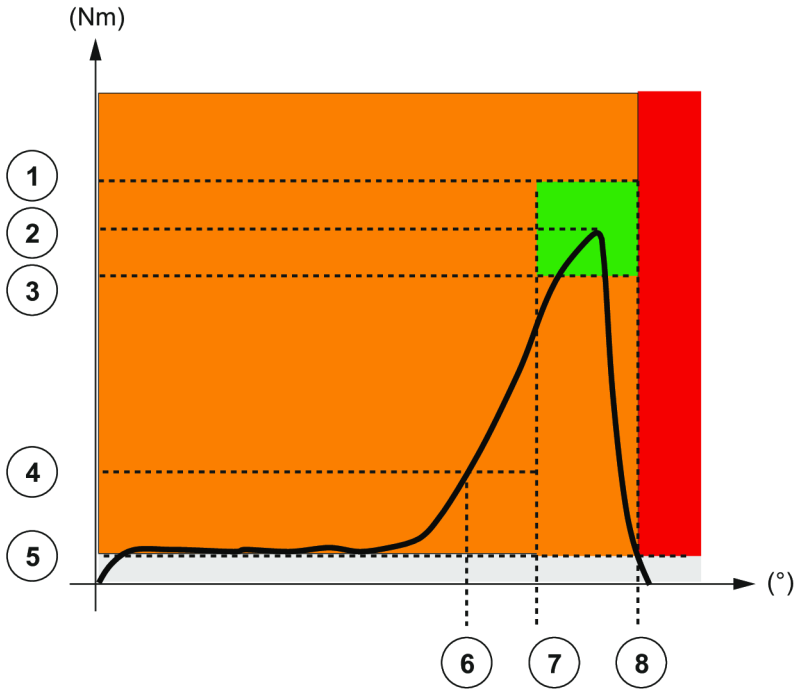
As the reaction force increases in proportion to the tightening torque, there is a risk of severe bodily injury of the operator as a result of unexpected behavior of the tool.

- ► Make sure that the tool is in perfect working order and the system is programmed correctly.

Press the trigger to start the tool.

Tightening status and LED reporting

Torque control with angle monitoring

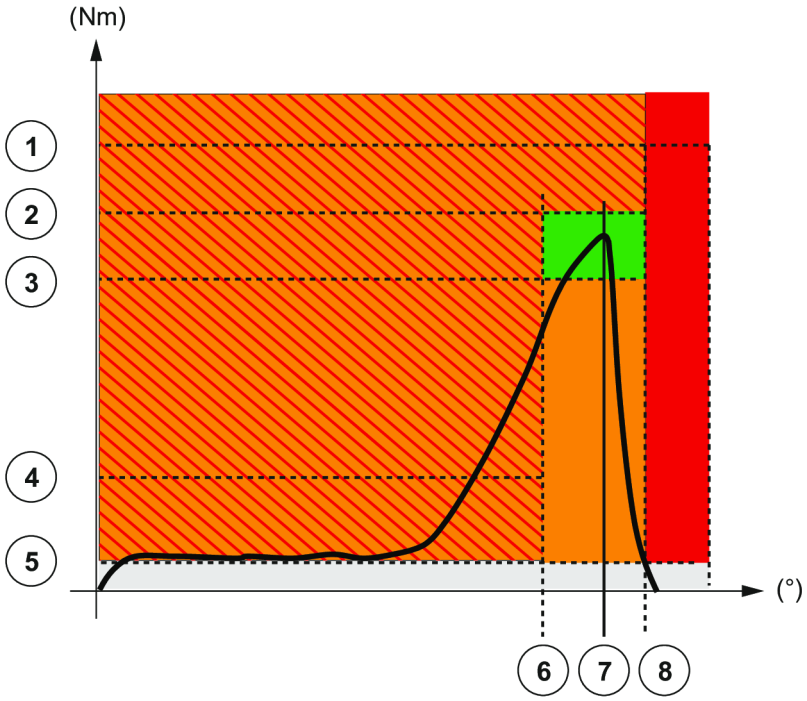


1	Max. torque
2	Target torque
3	Min. torque
4	Downshift torque
5	Pset start torque
6	Angle start
7	Min. angle
8	Max. angle

Examples:
- Both torque and angle within tolerances will lead to a green LED reporting.
- Torque within tolerances and angle below tolerances will lead to red + yellow status (red LED).

For tools running in severe applications, it may happen that reports are null when the battery is low.

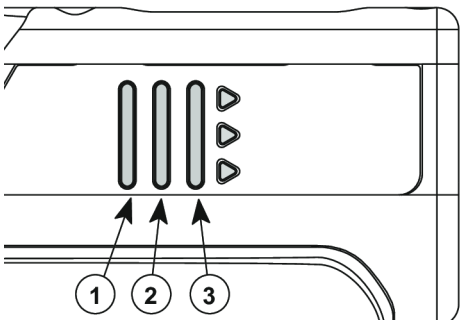
Angle control with torque monitoring



1	Abort torque
2	Max. torque
3	Min. torque
4	Angle threshold
5	Pset start torque
6	Min. angle
7	Target angle
8	Max. angle

For tools running in severe applications, it may happen that reports are null when the battery is low.

Reporting LEDs



1	Red
2	Green
3	Yellow

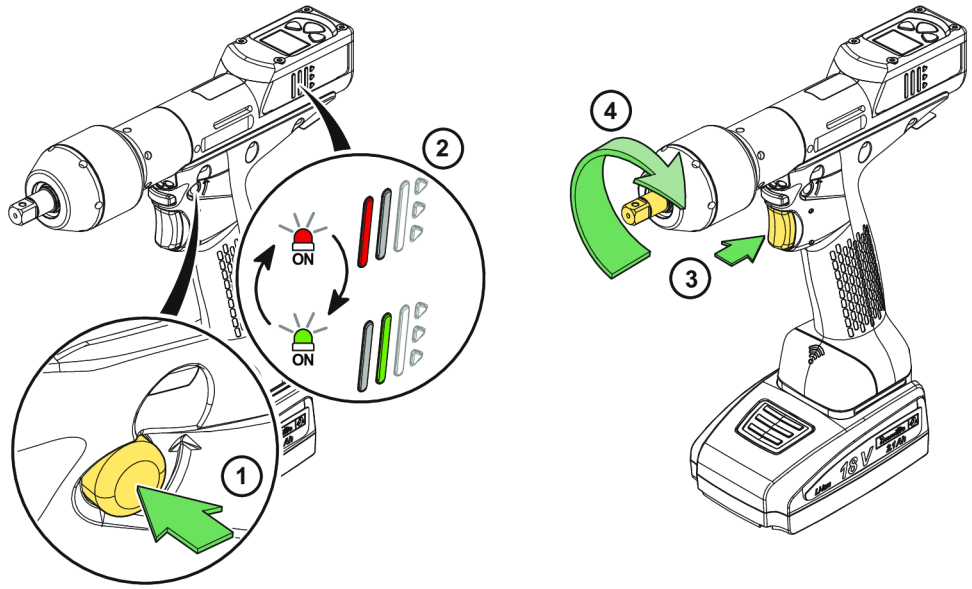
How to read the tightening report

LED color	Description	Action to do
Green	Accept report	None

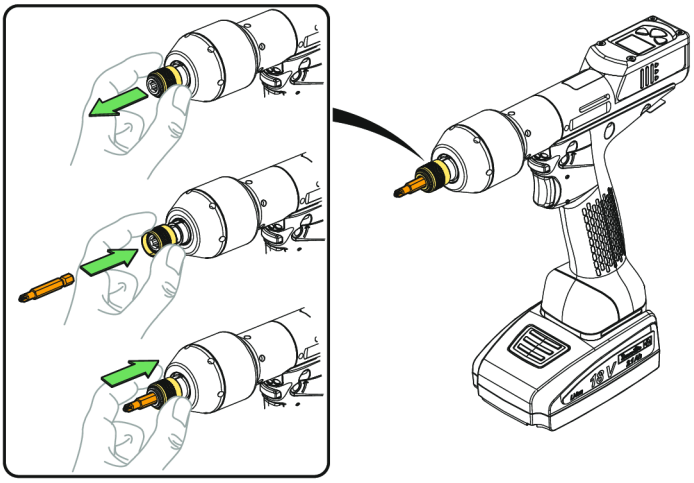
LED color	Description	Action to do
Yellow	Incomplete rundown	Tighten again.
Yellow and red (orange)	Reject report	Loosen and tighten again.
Red	Above max. limits	Remove and replace the fastener.

How to reverse the rotation

ⓘ In the following illustration, the tool is shown without its protective cover.



Changing bits



How to wake up the tool

The tool display switches off automatically after 2 minutes of inactivity.

Press the trigger.

The tool powers off after 30 minutes of inactivity.
Long press the reverse button.

Refer to "Power off" configurable on tool display or with CVI CONFIG.

Unplug and plug the battery pack.

Service

Firmware version on tool display

The firmware version of the tool is displayed in the menu "Maintenance/Tool".

AX.YY.ZZ.

Additional tool information

Total counter	P	Number of pulses done since the manufacturing of the tool.

Tool information from tool display

Go to "Maintenance/Tool" menu to get the following information:

Total counter	Number of tightenings since the manufacturing of the tool.
Battery	The current voltage value is displayed. The "Low battery" message is displayed when lower than 32 V. At 31 V, the tool stops.
Serial number	18B64685 for example.

Tool test with CVIMONITOR

 Click this icon.

Click **Tool test**.

Click **Start tool test**.
LEDs start blinking.
Press the triggers, the reverse button.

Click **Start audio test**.
The tool emits a sound.

ⓘ The green tick displayed indicates the function is working properly.

Tool identification with CVIMONITOR

 Click this icon.

Click **Tool identification**.

Go to the bottom of the screen and click **Read tool.**

A green tick indicates the reading is successful.

Maintenance Instructions

Instructions for transducerized tools

- Do not damage the wires when pulling out the connectors.
- Do not pull out the torque transducer wires.
- Ensure that wires are not crushed.

Read before maintenance

⚠ WARNING Connection Hazard

The tool can start unexpectedly and cause severe bodily injury.

► Prior to any maintenance task, disconnect the tool.

Maintenance should be performed by **qualified personnel only**.

Follow standard engineering practices and refer to exploded views for disassembling and reassembling the different parts of the system.

Take into account the following instructions given in the exploded views.

Be cautious: when reassembling, tighten the right direction.

Left hand thread

Right hand thread

When reassembling:

Apply the recommended glue.

Tighten to the required torque.

Lubricate with the required grease or oil. Do not apply too much grease on gears or bearings; a thin coat shall be sufficient.

Preventive Maintenance

Recommendations

Overhaul and preventive maintenance are recommended at regular intervals once per year or after a maximum number of tightenings (refer to the table below) depending on which occurs sooner.

Maintenance frequency

500,000 tightenings

Footprint pins maintenance

Footprint pins shall be greased at regular intervals, every 3 months or every 100,000 cycles.

See Maintenance guide for further details.

Service alarm on tool display

An alarm can be displayed when service is required.

This icon is displayed.

One of the service levels is displayed (see below). When no service is required, "none" is displayed.

A sound is heard.

It is possible to set 3 service levels:

Level	Number of tightenings	Service level
1	25 000	Calibration
2	250 000	Intermediate (for heavy duty applications only)
3	500 000	Standard

Go to the main screen.

Press this button during 2 seconds.

Press this button to reach **Maintenance**.

Go to **Tool**, then **Service alarm**, select a level, save and validate.

ⓘ Once the service is performed, reset the indicators.
Go to the "Maintenance/Service alarm" menu and press OK.

Calibration via tool display

The calibration procedure is recommended to compensate for any possible drift of the tool torque or after each change of tool element.

This function is set in the "Maintenance" menu.

1. Enter the Maintenance password in the "Configuration" menu.
2. Insert a torque transducer in line with the tool and connect it to any measuring unit from the Desoutter range.
3. Go to "Maintenance/Calibration".
   Select the number of tightenings required to execute the calibration and press OK.
   Run a Pset the number of times already configured (at max. torque and with an angle above 180° (at low speed)).
   Go on with other tightenings by pressing the trigger.
4. The average torque value is displayed in white.
   On the line below, enter the average torque value measured by the measuring unit (± 20 % vs the tool nominal torque are allowed).
5. Use the left/right buttons to increase or decrease the value.

Press OK and save your data.

Calibration with eDOCK and CVIMONITOR

The calibration procedure is recommended to compensate for any possible drift of the tool torque or after any change of tool element.

In the manual mode, the standard procedure is executed.
Measurements and values are typed manually by the operator.

The equipment required is as follows:

- Tool equipped with a torque transducer in line
- CVIMONITOR
- Delta measuring unit

Click this icon.

Click **Tool calibration**.

The standard procedure is as follows:

1. Select the Pset to execute.
2. Select the number of tightenings to perform (5 by default, 50 as a maximum).
   According to the test bench use, the tightening may be preceeded by a loosening.
3. Click "Start calibration".
4. Start performing the first loosening / tightening operation. The operation must be successful.
5. At the end of each operation, enter the torque value on the measuring unit.
6. When all operations are performed, a new calibration value is displayed.

Checking before putting back into service

Prior to putting the equipment back into service, check that its main settings have not been modified and that the safety devices work properly.

Advanced tool maintenance with ACCESS KEY

Launch CVIMONITOR.

To activate the screens, you need to have an ACCESS KEY USB stick with the right profile (configured with the Desoutter CVIKEY software).
If not, contact your CVIKEY manager for support.

Motor align

 Click this icon.

Click **Motor align**.

ⓘ It is mandatory to calibrate the tools after a motor align.

It is recommended to align the motor in case of motor, transducer or PCB change.

Before starting, press the trigger and **KEEP IT PRESSED DURING THE COMPLETE PROCESS**. If not, the tool could be severely damaged.

While pressing the trigger, click **Start motor align**.
The process will run during around 1 minute and will stop automatically.

Click "Stop motor align" to stop the process before the end.

Release the trigger.

Declaring fixed accessories

A fixed accessory mounted on a tool must be declared in this screen.

 Click this icon.

Click **Tool identification**.

Select the type of accessory and fill in the parameters.

Click **Write to tool**.

ⓘ It is mandatory to calibrate the tool equipped with the fixed accessory before use.

Upgrading tool firmware

 Click this icon.

Click **Upgrade tool firmware**.

Contact your Desoutter representative to get the last firmware version.

Follow the instructions on screen.

Troubleshooting

List of user infos related to the tools

Type	Colour	Description	Action
Information	White	For information only.	No action is required.
Warning	Orange	The tool is locked.	Click the message to clear (acknowledge) the message and unlock the tool.
Error	Red	The tool is locked.	The issue has to be solved to unlock the tool and clear the error message.

Number	Description	Procedure
I004	Span failure	1- Span value from torque sensor is outside bounds. 2- Try once again to start the tool with no mechanical constraints. If the problem occurs again, contact your Desoutter representative for support.
I005	Offset failure	1- Offset value from torque sensor is outside bounds. 2- Try once again to start the tool with no mechanical constraints. If the problem occurs again, contact your Desoutter representative for support.
I026	Tool maintenance alarm n1	1- The tool tightening counter has been reached.
I027	Tool maintenance alarm n2	1- The tool tightening counter has been reached.
I038	Tool logs	1- Unexpected tool software exception. 2- Log file has been generated by the tool. 3- Contact your Desoutter representative for support.
I046	Abnormal battery current	1- Abnormal battery current consumption. Check the Pset settings. 2- This error can be due to wrong speed settings.
I063	Battery pack removed	1- Battery pack removed from the tool detected. 2- After few seconds, the tool will shutdown
I065	External start ignored	1- External start detected but ignored. 2- Check tool and external start configuration.
I103	Invalid rotary selector direction	1- Change the direction of the rotary selector. 2- Verify that the rotary selector is in correct position or not damaged.
I205	Torque settings	1- Invalid Torque setting: torque is greater than tool characteristics. 2- Check Pset settings with the tool characteristics.
I206	Speed settings	1- Invalid speed setting: speed is greater than tool characteristics. 2- Check Pset settings with the tool maximum speed.
I210	Invalid Pset selected	1- The selected Pset does not match the Pset selectable in the Assembly Process.
I211	Invalid trigger configuration	1- The tool connected to the system is not equipped with the trigger required by the trigger configuration. 2- Adjust your trigger configuration to the tool or change the tool according to the trigger configuration.
I224	IGBT too hot	1- Power electronics too warm. 2- Let the system cool down.
I251	No Pset selected	1- No Pset selected. 2- Select a Pset.
I270	Time settings	1-Invalid Time setting|2-Check Pset settings with correct time value settings

Number	Description	Procedure
W010	Tool calibration expired	1- The tool calibration date has expired. 2- A tool calibration needs to be done to ensure the measurement accuracy.
W028	Battery tool version error	1 - Battery tool version and system version are not compatible.
W030	The battery is low.	1- The battery is low. 2- Recharge the battery.
W033	Tool time error	1- The tool time is not set correctly. The tightening results will not be time stamped. 2- Connect the tool to the system to set date and time.
W036	Tool memory full	1- The tool memory is full. 2- Connect the tool to the system to empty the memory.
W062	Overload of torque	1- Overload of the torque (could be a rehit). 2- Check the tool cable is not damaged.
W212	Result not stored	1- It is not possible to store the tightening result in the system. 2- Contact your Desoutter representative for support.
W216	Current high	1- Maximum current exceeded. 2- Contact your Desoutter representative for support.
W267	Result transfer error	Result transfer error.
E007	Motor too hot	1- Tool is locked because the maximum motor temperature has been reached. 2- Tool will remain locked until the motor temperature comes back to its normal value.
E008	Tool angle fault	1- Problem detected with the tool angle sensor. 2- The tool needs maintenance.
E009	Tool invalid parameters	1- Check the tool compatiblity. 2- The tool memory cannot be read or is invalid. 3- The tool needs maintenance. If the problem occurs again, contact your Desoutter representative for support.
E012	Tool EEPROM error	1- The tool memory cannot be read or is invalid. 2- The tool needs maintenance. If the problem occurs again, contact your Desoutter representative for support.
E018	Torque out of range !	1- The target torque value is above the tool maximum torque. 2- Check Pset settings with tool characteristics.
E029	The battery is empty.	1- The battery back is discharged. The tool cannot tighten. 2- Recharge the battery pack.
E031	Battery error	1- Abnormal battery voltage. The tool cannot tighten. 2- Recharge the battery pack. If the problem occurs again, replace the battery pack.
E032	Tool display error	1- Board display malfunction. 2- Contact your Desoutter representative for support.
E034	Tool memory error	1- The tool memory does not work properly. 2- Contact your Desoutter representative for support.
E035	Tool memory locked	1- The tool memory is locked to protect old data from rewriting. 2- Connect the tool to the computer via eDOCK to retrieve old data.
E037	Tool trigger error	1- The tool trigger does not work properly. 2- Check and clean the trigger. If the problem occurs again, contact your Desoutter representative for support.

Number	Description	Procedure
E045	Abnormal battery voltage	1- Check the battery pack. 2- This error can be due to charger malfunction or end of life battery.
E047	Battery is too low.	1- Check the battery pack. 2- If the problem occurs again, replace the battery pack.
E048	Battery type not allowed	1- Battery type not allowed. 2- Replace the battery pack or your configuration.
E223	Drive init error	1- Software failure. 2- Restart the system. 3- If the problem occurs again, contact your Desoutter representative for support.
E227	Motor stalled	1- Motor stalled (could be missing phase, wrong motor tune or power electronics failure) 2- Try once again. 3- If the problem occurs again, contact your Desoutter representative for support.
E228	Drive error	1- Software failure. 2- Restart the system. 3- If the problem occurs again, contact your Desoutter representative for support.

Original instructions

Founded in 1914 and headquartered in France, Desoutter Industrial Tools is a global leader in electric and pneumatic assembly tools serving a wide range of assembly and manufacturing operations, including Aerospace, Automotive, Light and Heavy Vehicles, Off-Road, General Industry.

Desoutter offers a comprehensive range of Solutions -tools, service and projects- to meet the specific demands of local and global customers in over 170 countries.

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