

Printed Matter No. 6159929380 EN Issue No. 01 06/2020 Date 1/24 Page

# **Cordless Angle Nutrunner**

## **Product Instructions**

Model	Part number	
EAB 15-900	6151657310	
EAB 26-560	6151657320	
EAB 32-410	6151657330	
EAB 45-330	6151657340	
EAB 50-450	6151657350	
EAB 60-370	6151657360	
EAB 75-300	6151657370	
EAB 95-240	6151657380	

Download the latest version of this document at http://www.desouttertools.com/info/6159929380\_EN



**A 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**

#### MARNING 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

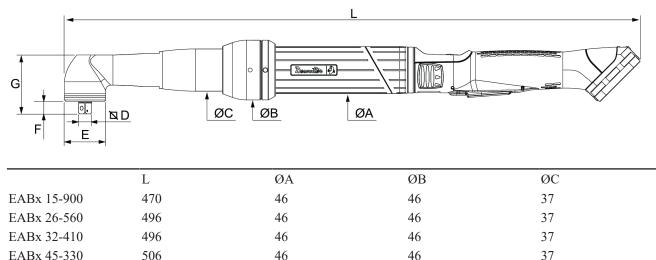
Information concerning our Products, Accessories, Spare Parts and Published Matters can be found on the Desoutter website.

Please visit: <u>www.desouttertools.com</u>.

#### Information about spare parts

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

#### **Dimensions (mm)**







oduct Informatio	n	EN		
EABx 50-450	546	46	46	37
EABx 60-370	559	46	58	41
EABx 75-300	582	46	58	48.5
EABx 95-240	582	46	58	48.5
	D	E	F	G
EABx 15-900	1/4"	28	12	46
EABx 26-560	3/8"	28	12	46
EABx 32-410	3/8"	28	12	46
EABx 45-330	3/8"	35	12	51
EABx 50-450	3/8"	35	12	51
EABx 60-370	1/2"	40	12	57
EABx 75-300	1/2"	45	18	60
EABx 95-240	1/2"	45	18	60

(i) EABx stands for EAB/EABA.

#### **CAD** files

For information about the dimensions of a product, see the Dimensional drawings archive: https://www.desouttertools.com/resource-centre

## **Overview**

#### **General overview**

EAB tools are cordless angle-head 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 1 Pset.

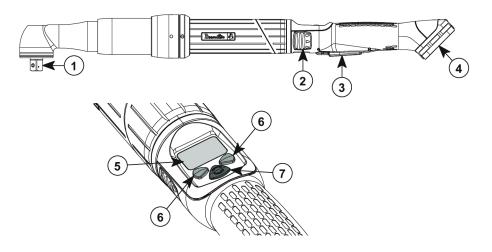
The target torque is configurable from the tool display.

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

Tool settings can be done via the tool display.

Tool maintenance can be done with eDOCK and CVIMONITOR software.

## **Product description**



- 1 Output drive
- 2 Reporting LEDs



3	Trigger
---	---------

4 Battery footprint

5 Display

- 6 Programming buttons
- 7 Reverse button

## **Technical data**

## Voltage (V)

#### 36 V ====

#### Output drive

Model	Туре	
EABx 15-900	Sq. 1/4"	
EABx 26-560	Sq. 3/8"	
EABx 32-410	Sq. 3/8"	
EABx 45-330	Sq. 3/8"	
EABx 50-450	Sq. 3/8"	
EABx 60-370	Sq. 1/2"	
EABx 75-300	Sq. 1/2"	
EABx 95-240	Sq. 1/2"	

(i) EABx stands for EAB/EABA/EABC.

#### Torque range (Nm)

Model	Min. / Nominal / Max.	
EABx 15-900	5 / 13 / 15	
EABx 26-560	5 / 24 / 26	
EABx 32-410	7 / 30 / 32	
EABx 45-330	9 / 40 / 45	
EABx 50-450	9 / 45 / 50	
EABx 60-370	10 / 55 / 60	
EABx 75-300	12 / 70 / 75	
EABx 95-240	19 / 90 / 95	

(i) EABx stands for EAB/EABA/EABC.

#### Torque range (ft.lb)

Model	Min. / Nominal / Max.	
EABx 15-900	3.69 / 9.59 / 11.06	
EABx 26-560	3.69 / 17.70 / 19.18	
EABx 32-410	5.16 / 22.13 / 23.60	
EABx 45-330	6.64 / 29.50 / 33.19	
EABx 50-450	6.64 / 33.19 / 36.88	
EABx 60-370	7.37 / 40.57 / 44.25	
EABx 75-300	8.85 / 51.63 / 55.32	
EABx 95-240	14.01 / 66.38 / 70.07	

(i) EABx stands for EAB/EABA/EABC.



## **Product Information**

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#### Rated speed (rpm)

Model	rpm	
EABx15-900	900	
EABx 26-560	560	
EABx 32-410	410	
EABx 45-330	330	
EABx 50-450	450	
EABx 60-370	370	
EABx 75-300	300	
EABx 95-240	240	

(i) EABx stands for EAB/EABA/EABC.

Weight			
Model	(kg)	(lb)	
EABx 15-900	1.55	3.42	
EABx 26-560	1.65	3.64	
EABx 32-410	1.65	3.64	
EABx 45-330	1.76	3.88	
EABx 50-450	2.04	4.50	
EABx 60-370	2.35	5.18	
EABx 75-300	2.94	6.48	
EABx 95-240	2.98	6.57	

(i) EABx stands for EAB/EABA.

(i) The weight is given without the battery pack.

#### 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

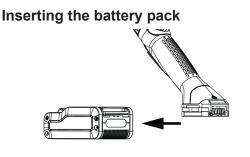
#### **Optional accessories**

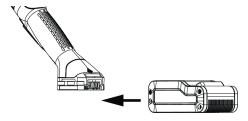
eDOCK	6158119760	
Required accessories		
Battery pack 18 V 2.5 Ah	6158132660	
Battery pack 36 V 2.5 Ah	6158132670	
Battery pack charger	6158132700	



## Installation

Installation Instructions





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

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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.

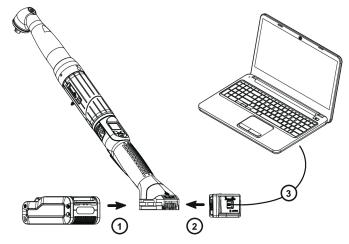
NOTICE Usage recommendations for battery packs

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.

(i) 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
$\bigcirc$	Right button
	Left button
V	Validate
	Save
<b>*</b>	Quit
	Pset
<b>()</b>	The sound is disabled.
<b>••())</b>	The sound is enabled.
	The battery pack is full.
	The battery pack is low.

#### Additional icons and buttons

୯	Reverse mode: once The tool will run in reverse once only. To run the tool in reverse again, the operator will have to press the Re- verse button.
<b>(</b> )	Reverse mode: alternate The tool will run in reverse until the operator presses the Reverse button again.
	This icon blinks when the tool memory is full. New results will overwrite the oldest results.

#### How to disable the passwords

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

Passwords are used to protect some settings against hazardous changes.

Pset, Ergostop, Pset password, Reverse, Sound, Torque unit are settings protected by the Pset password.



Maintenance password, Calibration are settings protected by the Maintenance password. 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 validate. The red padlock turns green.

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

#### How to set up new passwords

(i) 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.

 $\overline{}$ 

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.

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

(i) 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

(i) 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



## Operation

- 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

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.

(i) 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.
Target torque	The torque 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	5,000 degrees by default
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 (usually 50% of the target torque)
Max. time	30 sec by default. The tool stops when the time is reached.

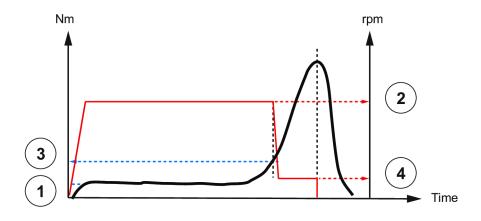
#### Motor control



Starting at the "Start" signal, the tool runs with a programmed acceleration up to "Rundown speed". The tool keeps running at "Rundown speed".

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Once "Downshift torque" has been reached, the speed changes to "Downshift speed".



Item	Parameter	Description
1	Pset start torque	The <b>Pset start torque</b> 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 "Down-shift 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.

## **Operating Instructions**

#### How to use the tool

#### 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.

## MARNING 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.

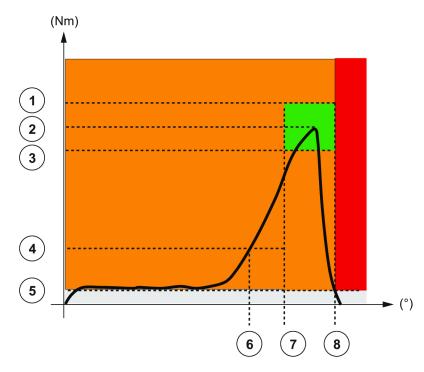
► Make sure that the tool is in perfect working order and the system is programmed correctly.

Press the trigger to start the tool.



## Tightening status and LED reporting

Torque control with angle monitoring



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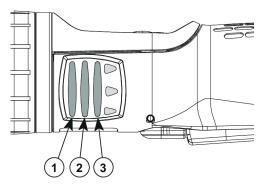
1	Max. torque
2	Target torque
3	Min. torque
4	Downshift torque
5	Pset start torque
6	Angle start
7	Min. angle
8	Max. angle

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.

#### Reporting LEDs



1	Red
2	Green
3	Yellow



How to read the tightening report

LED color	Description	Action to do
Green	Accept report	None
Yellow	Incomplete rundown	Tighten again.
Yellow and red (orange)	Reject report	Loosen and tighten again.
Red	Above max. limits	Remove and replace the fastener.

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#### How to reverse the rotation



Run reverse button

Press this button.

Red and green LEDs are blinking alternatively.

Apply the tool to the fastener and press the trigger.

#### How to smooth the tool stop

(i) The "Ergostop" function must be disabled for tightening tests or certification on tightening benches.

Ergostop allows a smoother tool stop to reduce the torque reaction on the operator. When delivered, this function is disabled.

Go to the main screen.



Press this button during 2 seconds.

Go to Ergostop. Use the buttons to enable or disable the function, save and validate.

#### How to wake up EAB tools

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.

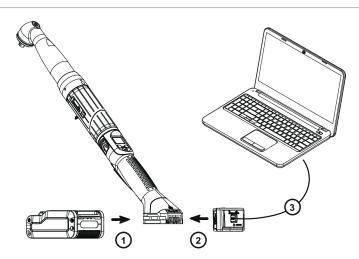
Refer to "Power off" configurable on the tool display.

Unplug and plug the battery pack.

#### **Results monitoring**

Connect the tool to a PC by using the eDOCK device.





Launch CVI MONITOR to collect and display the last 100 results.

Refer to the user manual of **CVIMONITOR** available at <u>https://www.desouttertools.com/resource-centre</u>.



## Service

## Firmware version on tool display

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

## 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.

(i) 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

#### MARNING 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.



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

Be cautious: when reassembling, tighten the right direction.

 $\bigcirc$  <sup>1</sup>

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

## 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.

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



## Service

## 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.

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This function is set in the "Maintenance" menu.

- Enter the Maintenance password in the "Configuration" menu. 1.
- Insert a torque transducer in line with the tool and connect it to any measuring unit from the Desoutter range. 2.
- 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 ( $\pm 20$  % 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 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.
- At the end of each operation, enter the torque value on the measuring unit. 5.
- When all operations are performed, a new calibration value is displayed. 6

## 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

ð

Click this icon.

#### Click Motor align.

(i) 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.

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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.

(i) 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

Number	Description	Procedure
I004	Span failure	<ol> <li>Span value from torque sensor is outside bounds.</li> <li>Try once again to start the tool with no mechanical constraints. If the problem occurs again, contact your</li> </ol>
		Desoutter representative for support.
1005	Offset failure	<ol> <li>Offset value from torque sensor is outside bounds.</li> <li>Try once again to start the tool with no mechanical constraints. If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
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.
1038	Tool logs	<ol> <li>1- Unexpected tool software exception.</li> <li>2- Log file has been generated by the tool.</li> <li>3- Contact your Desoutter representative for support.</li> </ol>
I046	Abnormal battery current	<ol> <li>Abnormal battery current consumption. Check the Pset settings.</li> <li>This error can be due to wrong speed settings.</li> </ol>
I063	Battery pack removed	<ol> <li>Battery pack removed from the tool detected.</li> <li>After few seconds, the tool will shutdown</li> </ol>
I065	External start ignored	<ol> <li>External start detected but ignored.</li> <li>Check tool and external start configuration.</li> </ol>
I103	Invalid rotary selector direction	<ol> <li>Change the direction of the rotary selector.</li> <li>Verify that the rotary selector is in correct position or not damaged.</li> </ol>
1205	Torque settings	<ol> <li>Invalid Torque setting: torque is greater than tool characteristics.</li> <li>Check Pset settings with the tool characteristics.</li> </ol>
I206	Speed settings	<ol> <li>Invalid speed setting: speed is greater than tool characteristics.</li> <li>Check Pset settings with the tool maximum speed.</li> </ol>
I210	Invalid Pset selected	1- The selected Pset does not match the Pset selectable in the Assembly Process.
I211	Invalid trigger configuration	<ol> <li>1- The tool connected to the system is not equipped with the trigger required by the trigger configuration.</li> <li>2- Adjust your trigger configuration to the tool or change the tool according to the trigger configuration.</li> </ol>
I224	IGBT too hot	<ol> <li>Power electronics too warm.</li> <li>Let the system cool down.</li> </ol>
I251	No Pset selected	<ol> <li>No Pset selected.</li> <li>Select a Pset.</li> </ol>
I270	Time settings	1-Invalid Time setting 2-Check Pset settings with cor- rect time value settings
W010	Tool calibration expired	<ol> <li>1- The tool calibration date has expired.</li> <li>2- A tool calibration needs to be done to ensure the measurement accuracy.</li> </ol>
W028	Battery tool version error	1 - Battery tool version and system version are not compatible.
W030	The battery is low.	<ol> <li>The battery is low.</li> <li>2- Recharge the battery.</li> </ol>
W033	Tool time error	<ol> <li>1- The tool time is not set correctly. The tightening results will not be time stamped.</li> <li>2- Connect the tool to the system to set date and time.</li> </ol>

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## Troubleshooting

Number	Description	Procedure
W036	Tool memory full	<ol> <li>The tool memory is full.</li> <li>Connect the tool to the system to empty the mem-</li> </ol>
		ory.
W062	Overload of torque	<ol> <li>1- Overload of the torque (could be a rehit).</li> <li>2- Check the tool cable is not damaged.</li> </ol>
W212	Result not stored	<ol> <li>It is not possible to store the tightening result in the system.</li> <li>Contact your Desoutter representative for support.</li> </ol>
W216	Current high	<ol> <li>Maximum current exceeded.</li> <li>Contact your Desoutter representative for support.</li> </ol>
W267	Result transfer error	Result transfer error.
E007	Motor too hot	<ol> <li>1- Tool is locked because the maximum motor temper ature has been reached.</li> <li>2- Tool will remain locked until the motor temperature comes back to its normal value.</li> </ol>
E008	Tool angle fault	<ol> <li>Problem detected with the tool angle sensor.</li> <li>The tool needs maintenance.</li> </ol>
E009	Tool invalid parameters	<ol> <li>Check the tool compatibility.</li> <li>The tool memory cannot be read or is invalid.</li> <li>The tool needs maintenance. If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
E012	Tool EEPROM error	<ol> <li>The tool memory cannot be read or is invalid.</li> <li>The tool needs maintenance. If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
E018	Torque out of range !	<ol> <li>The target torque value is above the tool maximum torque.</li> <li>Check Pset settings with tool characteristics.</li> </ol>
E029	The battery is empty.	<ol> <li>The battery back is discharged. The tool cannot tighten.</li> <li>Recharge the battery pack.</li> </ol>
E031	Battery error	<ol> <li>Abnormal battery voltage. The tool cannot tighten.</li> <li>Recharge the battery pack. If the problem occurs again, replace the battery pack.</li> </ol>
E032	Tool display error	<ol> <li>Board display malfunction.</li> <li>Contact your Desoutter representative for support.</li> </ol>
E034	Tool memory error	<ol> <li>1- The tool memory does not work properly.</li> <li>2- Contact your Desoutter representative for support.</li> </ol>
E035	Tool memory locked	<ol> <li>The tool memory is locked to protect old data from rewriting.</li> <li>Connect the tool to the computer via eDOCK to re- trieve old data.</li> </ol>
E037	Tool trigger error	<ol> <li>The tool trigger does not work properly.</li> <li>Check and clean the trigger. If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
E045	Abnormal battery voltage	<ol> <li>Check the battery pack.</li> <li>This error can be due to charger malfunction or end of life battery.</li> </ol>
E047	Battery is too low.	<ol> <li>Check the battery pack.</li> <li>2- If the problem occurs again, replace the battery pack.</li> </ol>
E048	Battery type not allowed	<ol> <li>Battery type not allowed.</li> <li>2- Replace the battery pack or your configuration.</li> </ol>



Number	Description	Procedure
E223	Drive init error	<ol> <li>Software failure.</li> <li>Restart the system.</li> <li>If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
E227	Motor stalled	<ol> <li>1- Motor stalled (could be missing phase, wrong motor tune or power electronics failure)</li> <li>2- Try once again.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
E228	Drive error	1- Software failure.

2- Restart the system.

representative for support.

3- If the problem occurs again, contact your Desoutter

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