Printed Matter No. 6159990870_EN
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AXON DRIVE Range

Product Instructions

Model	Part number
AXON DRIVE	6159327800
AXON MODULE	6159327830

Download the latest version of this document at
http://www.desouttertools.com/info/6159990870_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

Table of Contents

Product Information

General Information

⚠ WARNING Risk of Property Damage or Severe Injury

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

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

About this manual

This manual describes how to install and upgrade AXON drive system.

Desoutter should not be held responsible for any injury, accident or damage which may be the consequence of an incorrect installation, modification or start-up, or a use out of the intended use of Desoutter products, by the customer or a third party.

ⓘ Before starting, you **must** read and understand the safety instructions given in the booklet supplied in the packaging box of products (printed matter: 6159990890).

To test and validate that the system is properly working, follow the procedure described in this manual.

Warranty

- Product warranty will expire 12+1 months after dispatch from Desoutter's Distribution Center.
- Normal wear and tear on parts is not included within the warranty.
  - Normal wear and tear is that which requires a part change or other adjustment/overhaul during standard 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.

CAD files

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

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

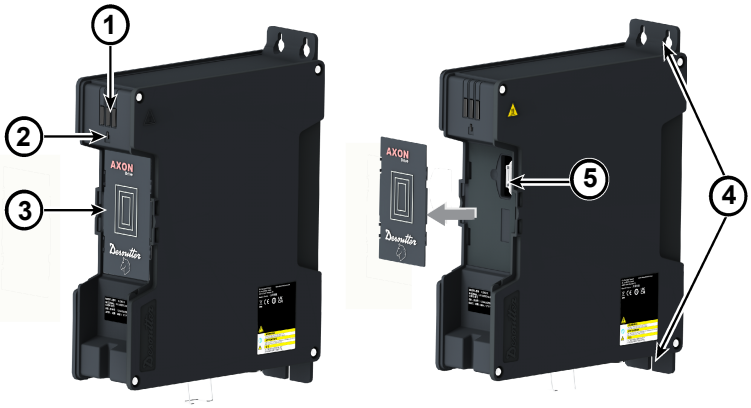
Description

About AXON DRIVE System

AXON DRIVE is a powerful and modular system that can be adjusted to any needs and able to manage corded tools.

1	Front Panel	2	AXON MODULE
3	Bottom Panel		

Front Panel



1	LED	AXON DRIVE Reporting LED
2	Power LED	Power ON/OFF AXON Status
3	Cover	Removable parts used as a protection when the AXON DRIVE is not used with the AXON MODULE. Refer to *Installing the AXON MODULE [Page 13]*.
4	Mounting Holes	To install the AXON on the aluminum panel
5	AXON DRIVE Connector Interface	To connect the AXON MODULE to the AXON DRIVE

1) There are 3 LED Status and all the LEDs blink during start up.

- Orange LED: It remains steady when reports are ok and blinks when the Pset values are not correct.
- Green LED: It remains steady when reports are ok.
- Red LED: It remains steady when there is a warning from the system.

2) Power LED blinks when the AXON DRIVE is turned on. Steady when system started and initialized.

AXON MODULE

AXON MODULE is a display unit which attaches to the AXON DRIVE. Feature management and UVs are managed by the AXON MODULE.

Refer to *Feature Management [Page 52]*.

1	LED	WiFi Reporting LED
2	Power Button	To power ON/OFF the AXON DRIVE system
3	Home Button	To return to Main Menu / Hide user info
4	Screen	AXON display
5	RJ45 Port	Ethernet Port (Ethernet 3 with PoE option)
6	USB-A	USB Port Module
7	AXON MODULE Connector Interface	To connect with the AXON DRIVE
8	Lockers	To lock / unlock the AXON MODULE when connected to the AXON DRIVE

1) Status LED:

	OFF	ON	Short Blinking	Long Blinking
Blue LED	Wireless OFF	Wireless available	Wireless starting	Pairing mode

2) Power Button:

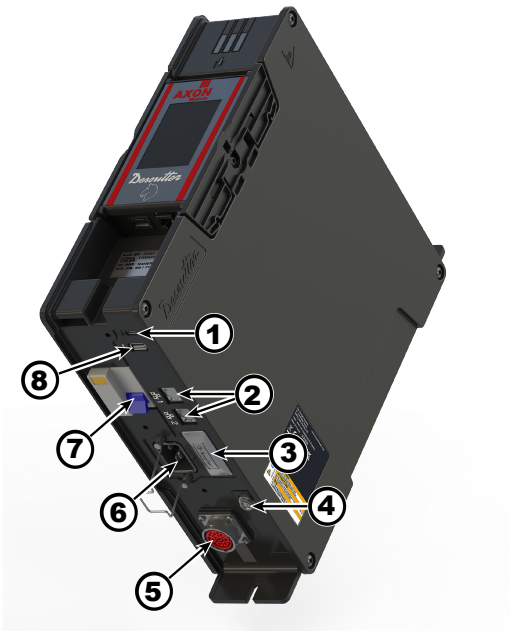
- Short press of power button shows power off menu while system is ON.
- Long press of power button for 5 seconds will power ON/OFF the AXON DRIVE system (if circuit breaker is activated).

3) Home Button:

- Short press of home button shows the main menu.
- (*) Long press of home button shows the identification summary of the system like Name, IP address, Wi-Fi SSID to ease the connection process to this system.

(*) This feature will be available soon

Bottom Panel



1	USB-C Socket	2	Ethernet Sockets
3	Fieldbus Port	4	M8 Connector
5	Tool Connector	6	Power Socket
7	Circuit Breaker	8	USB-A Socket

1) USB-C socket is designed to connect appliances compatible with USB-C type connection.

2) Ethernet socket is provided to connect the ethernet cables.

3) Fieldbus port is provided to install the fieldbus module which shares the data between the PLC and the system. Refer to the user manual of Fieldbus.

4) M8 connector is provided to connect the quick stop button to the AXON DRIVE.

5) Tool connector is provided to connect the corded tool to the AXON DRIVE.

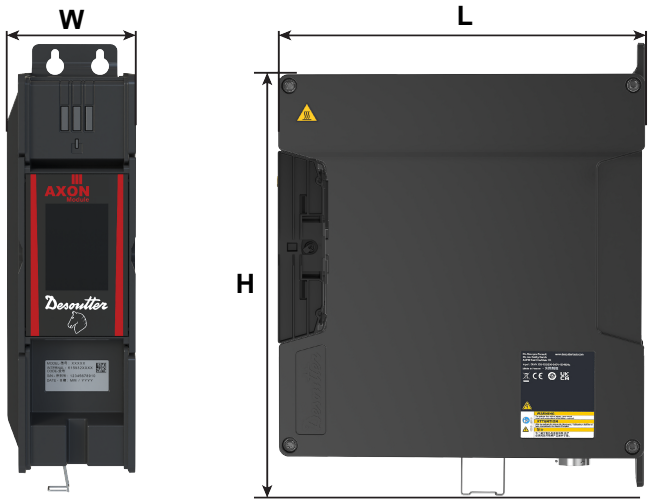
6) Power socket is provided to connect the AXON DRIVE to the power supply.

ⓘ The power supply must be 220-240 V (single phase) with frequency 50/60 Hz.

7) Circuit breaker with over-current protection provides protection against earth leakage faults (30mA), overloads, short-circuits and over-current in the installation.

8) USB-A socket is designed to connect appliances compatible with USB-A type connection.

Dimensions



L (mm)	303
L (inch)	11.93
W (mm)	103.2
W (inch)	4.06
H (mm)	323
H (inch)	12.72

L (mm)	93.2
L (inch)	3.66
W (mm)	40
W (inch)	1.57
H (mm)	158.3
H (inch)	6.23

Refer to the **CAD 3D** models and **2D** views available at https://www.desouttertools.com/resource-centre.

Quick Start

The following sections describe how to install your AXON DRIVE.

List of compatible tightening tools

Most of Desoutter electric tools can be connected to the AXON DRIVE system.

- Handheld tools:
  - Angle head range EAD, ERSA*.
  - Inline range EID, EIDS, ERS*.
  - Pistol range EPD, EPD-LRT.
- Fixtured tools:
  - Spindle range : EFDE, EFDS, EFDA, EFDO, ERSF*

ⓘ Tools with (*) are supported with ERS module adapter
EFD-TA tools will be available soon.

ⓘ The AXON DRIVE system can handle corded tools up to 2000 Nm.

Contact your Desoutter representative to get more information and support.

Optional Fieldbus Module

Fieldbus Module (to be ordered separately)

Modules	Part Number
Profibus module	6159275950
ProfiNet module (1 port)	6159275960
ProfiNet module M40 (2 ports)	6159275970
ProfiNet IRT M40 module (2 ports)	6159275070
DeviceNet module	6159275599
CC-Link module	6159275598
EtherNet IP module M30	6159275940
Modbus TCP module	6159276150
EtherNet IP module M40	6159279380

Technical data

Environment restrictions

Refer to the Safety Instructions booklet supplied in the packaging box of drive.

Line protection

The AXON DRIVE system has a JVL6-32 residual current circuit breaker with over-current protection which provides protection against earth leakage faults (30mA), overloads, short-circuits and over-current in the installation.

There is no fuse.
The over-current protection of the JVL6-32 uses “D” tripping characteristics.

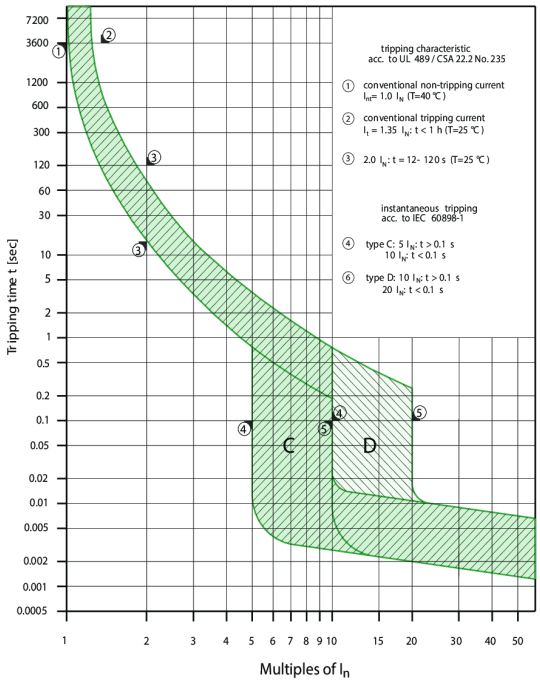


Figure 1 - Curve C and D

⚠ WARNING Risk of Damage

Do not replace the circuit breaker by a model of higher value and by a short-circuit.

Voltage	220-240 V
Max. current	16 A
Curve	D
Differential sensitivity	30 mA
GFI type	A

Power Supply

Overvoltage equipment category II

Input Voltage (V)	220-240 (Single phase)
Frequency (Hz)	50/60

ⓘ Power supply fluctuations must not exceed +/- 10% of the nominal voltage

eBUS accessories power consumption

Table of maximum current value per accessory

Socket tray	90 mA @ 24V DC
Bit tray	110 mA @ 24V DC
Stacklight	270 mA @ 24V DC
Operator panel	110 mA @ 24V DC
I/O expander	400 mA @ 24V DC

Power Consumption

Maximum Power Consumption (kVA)	3.7
240 V / I max	16 A

Ingress Protection

IP Rating	**40**
Protection Over Particle	Over **1 mm**

ⓘ There is no water protection.

Weight

Model	Weight (kg)	Weight (lbs)
AXON DRIVE	6	13.2
AXON DRIVE + MODULE	6.2	13.6

Installation

Installation Requirements

Checking the line voltage

Before connecting the AXON DRIVE to the main supply, check that the line voltage is appropriate.

Line voltage (V)	220-240 V~

The symbol ~ means "alternating current".

Earthing the AXON DRIVE

The AXON DRIVE must be plugged into an outlet properly installed and grounded in accordance with all relevant codes and ordinances.

Never remove the grounding prong or modify the plug in any way.
Do not use any adaptor plugs.
Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.

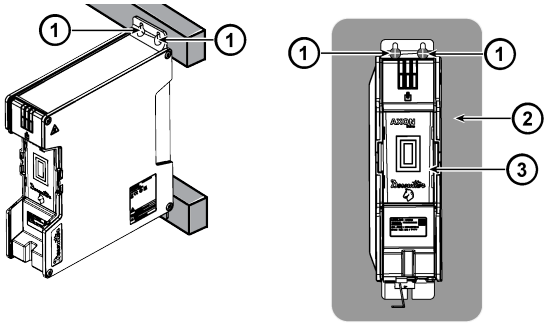
Installation Instructions

Installing Single Drive

ⓘ The product must not be confined nor covered.

ⓘ The AXON DRIVE system should be mounted vertically for optimal system functionality. This will facilitate the air flow and heat transfer.

1. The AXON DRIVE must be installed in a location where the GFI blue interrupter and test button can be:
   - Visually controlled (ON/OFF status).
   - Easily accessed (Power ON/OFF and test).
2. Install the AXON DRIVE (3) with bolts (1) and washers on wall (2).



ⓘ
- Use 3 **M6** allen bolts along with **14 mm** flat washers.
- Apply **9 Nm** torque to tighten the bolts.

ⓘ Refer to Safety Information document **6159990890** to get details on how to attach the controller and list of suitable accessories.

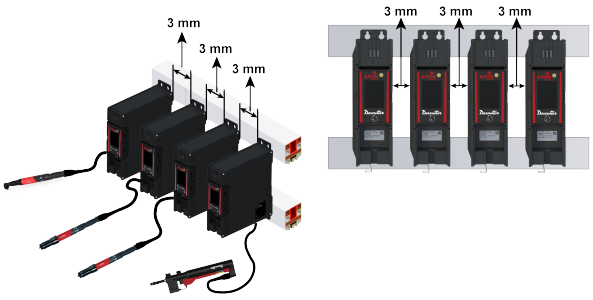
NOTICE Make sure all the protective covers and dust caps are installed on the AXON DRIVE system if not in use.

Installing Multiple Drive

ⓘ The product must not be confined nor covered.

1. The multiple AXON DRIVEs must be installed in a location where the GFI blue interrupter and test button can be:
   - Visually controlled (ON/OFF status).
   - Easily accessed (Power ON/OFF and test).

2.



Install the AXON DRIVE with bolts and washers on mounting rack or wall. Refer to *Installing Single Drive [Page 12]*.

ⓘ While installing the multiple AXON DRIVEs on the aluminum profile, the minimum distance to be kept is **3 mm**. This distance is recommended to facilitate the air flow and heat transfer.

ⓘ Refer to Safety Information document **6159990890** to get details on how to attach the controller and list of suitable accessories.

NOTICE Make sure all the protective covers and dust caps are installed on the AXON DRIVE system if not in use.

Initial Configuration

Connecting the System

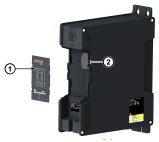
Installing the AXON MODULE

1) Place the circuit breaker to OFF position.
2) Wait until all LEDs are turned off.

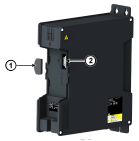
⚠ **CAUTION Carefully remove the cover from the AXON DRIVE**

Use a flat-blade screwdriver or a similar flat tool to push the clips of the cover located on the left side one after the another.

3) Remove the cover (1) from the AXON DRIVE (2).



4) Remove the cap (1) from the AXON DRIVE connector (2).



5) Hold the AXON MODULE (2) and insert into the AXON DRIVE (1).

ⓘ Install the AXON MODULE from the bottom first.

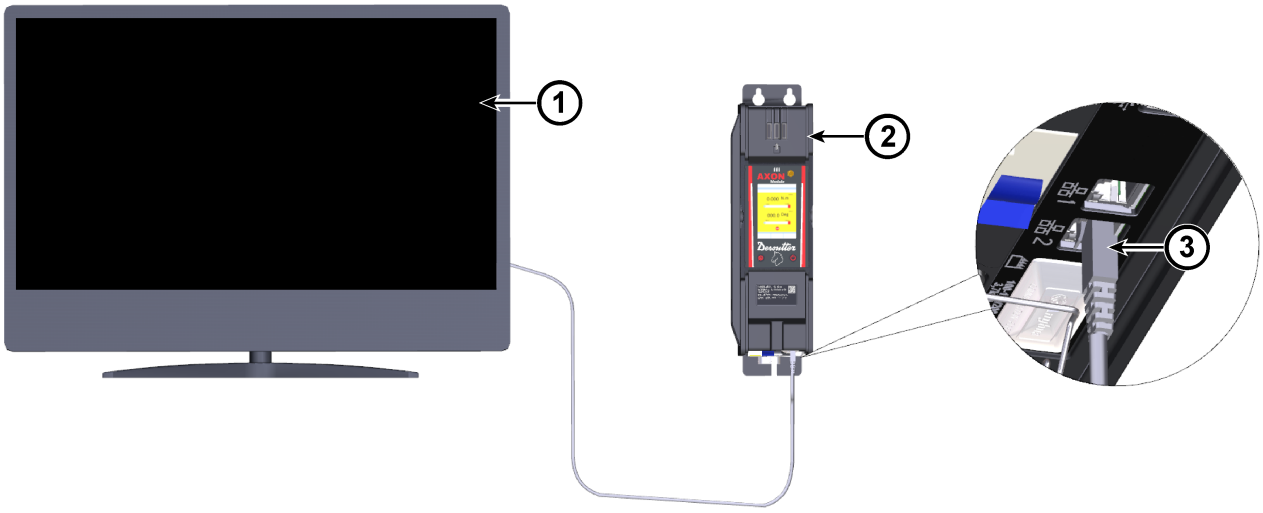
6) Turn the knob (1) to lock position.

ⓘ The lock (1) is available on both the sides of the AXON MODULE. Make sure that both locks are turned to lock position.

⚠ **WARNING Always place the AXON MODULE connector cap on the interface socket after disconnecting the AXON MODULE.**

Play the below video to visualize the above procedure.

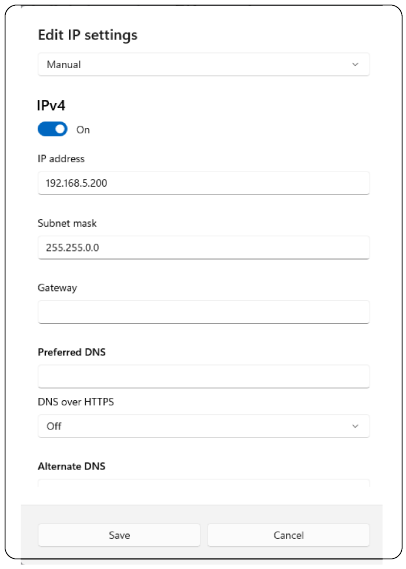
Connecting the Computer with Ethernet Cable



Connect the computer (1) to the AXON DRIVE (2) with the connector (3) to the ethernet socket.

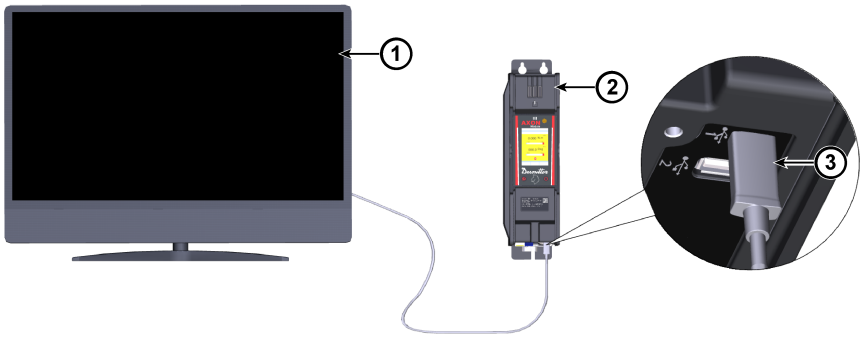
Changing the IP address

1. Open **Network and Sharing** center to change the IP address.



2. Change the IP address compatible with the tightening product. By default AXON IP address is : **192.168.5.112**.
   Subnet mask : **255.255.255.0**
   Example, configure computer IP address with the following IP address : **192.168.5.112**
3. Change the subnet mask compatible with the tightening product.
   By default AXON Subnet mask : **255.255.255.0**.
   For example, configure computer IP address with the following Subnet mask : **255.255.255.0**

Connecting the Computer with USB Cable



Connect the computer (1) to the AXON DRIVE (2) with shielded cable (3) to the USB service port.

ⓘ Access to the AXON can be done with any web browser with this following address : *axon.local*.

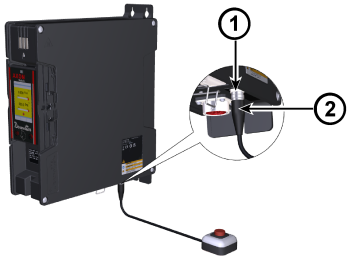
Connecting the Corded Tool

ⓘ Refer to the tool user manual to select suitable tool cable and verify compatibility with AXON DRIVE system.

1. Power off the AXON DRIVE. Refer to Powering Off the Drive.
2. Plug the tool (1) to the cable socket (2).
3. Remove the tool connector dust cap from the drive.
4. Plug the drive cable socket (3) to AXON DRIVE connector (4).

⚠ **WARNING Always install the tool connector dust cap on the tool connector after disconnecting the tool cable.**

Connecting the M8 Connector



ⓘ Refer to the tool user manual to select the suitable tool cable and verify compatibility with AXON DRIVE.

1. Remove the M8 connector dust cap from the AXON DRIVE.
2. Plug the connector cable socket (2) to the M8 connector (1).

   ⓘ Make sure the cable is connected to the e-stop button.

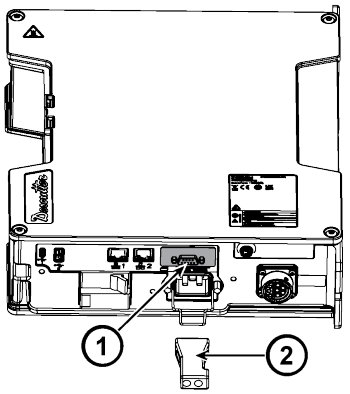
ⓘ Descriptions about the pins:

- **Pin 1**: quick stop
- **Pin 2**: quick enable
- **Pin 3**: +24V IO
- **Pin 4**: earth by ground

⚠ **WARNING Always install the tool connector dust cap on the tool connector after disconnecting the tool cable.**

Connecting the Fieldbus Module

ⓘ The circuit breaker must be in OFF position. Refer to *Powering On / Off [Page 18]*. Wait until all LED are turned off.



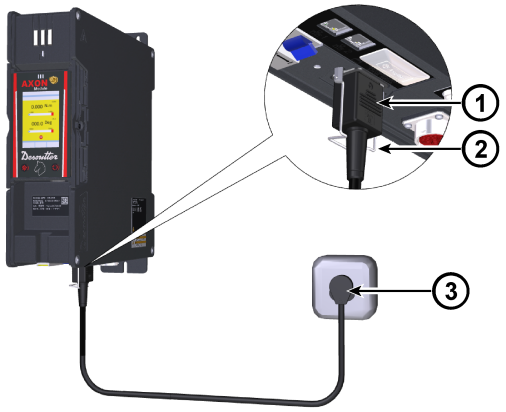
1. Remove the protective cover from the fieldbus connector.
2. Install the cable connector (2) into the fieldbus module (1).
3. Connect the fieldbus cable to the PLC (3).

⚠ **WARNING Always place the Fieldbus port dust cap on the Fieldbus port after removing the Fieldbus module from the AXON DRIVE.**

Checking that Fieldbus cover is in place.

⚠ **WARNING When the Fieldbus module is not into its location (1) the cover must remain in place.**

Connecting to the Power Cord



1. Install the socket (2) to the power socket (1) of the AXON DRIVE and plug (3) to the mains.
2. Lock the power cord connector with the manual lock.

ⓘ The lock holds the power cord and does not allow to loose or fall down.

ⓘ Use only one of the power cords. Refer to the chapter Required accessories of Safety Information **6159990890**

Area	Length (m)	Length (ft)	Part number
Europe	2.5	8.20	6159170690
USA NEMA 5-15	2.5	8.20	6159170600
UK	2.5	8.20	6159170700
China	2.5	8.20	6159170610

Powering On / Off

Powering on the AXON DRIVE

Place the circuit breaker in the ON position. This will turn on the AXON DRIVE.

ⓘ Report LEDs are blinking during the powering on of the AXON DRIVE. The system is ready to operate once the status LED remains still and all report LEDs are turned off.

Powering on the AXON MODULE

Press the power button (2) to turn on the AXON MODULE.

ⓘ Once the AXON MODULE is turned on, the power button (2) can be used to turn on / off the AXON DRIVE system. It is not mandatory to turn off the circuit breaker button.

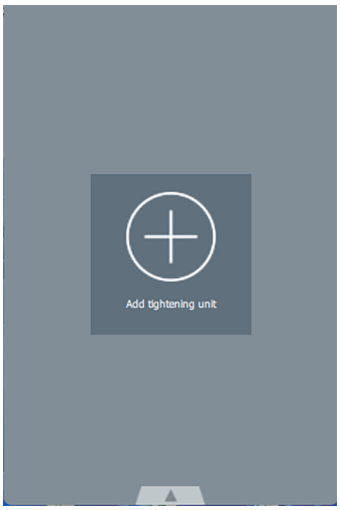
Operation

Configuration Instructions

Creating a Tightening Unit with AXON

ⓘ Before starting, check that the module contains enough UVs for the planned configuration. If not, go to the chapter *Adding a Feature [Page 52]*

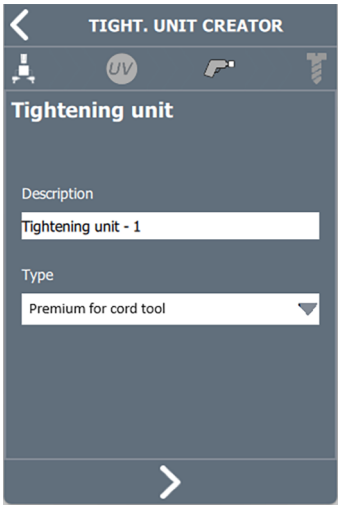
1. Press "+" button to add a tightening unit



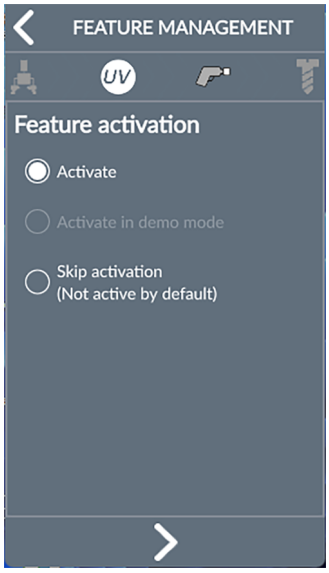
2. Enter the following information:
   - Description
   - Tightening unit type (Premium or Essential)

ⓘ Essential cord tool Tightening unit: 17 UV

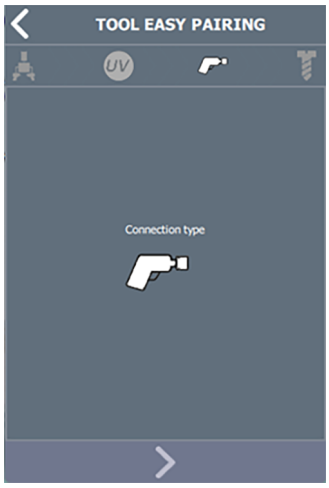
Premium cord tool Tightening unit: 62 UV



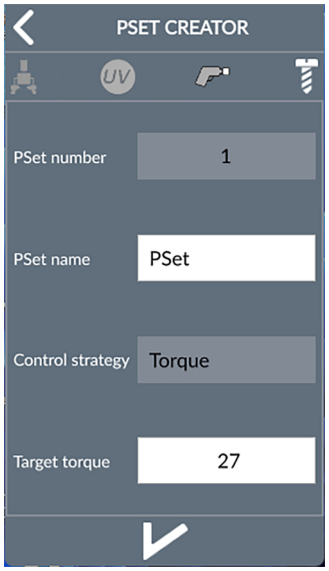
3. Activate the Tightening unit:
   - Activate with UV
   - Activate in demo mode (90 days demo)
   - Skip activation (Tightening unit not active)



4. Connect the tool to AXON to read its characteristics



5. Adjust the Pset settings according to the tool characteristics
   - Pset name
   - Target torque value



6. To validate the settings, press the icon:

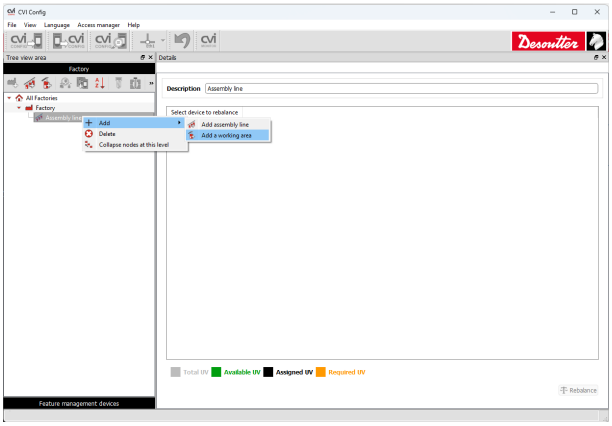
ⓘ A Tightening unit and a Pset have now been created.

Refer to *Selecting Another Pset or Assembly Process [Page 41]* to select the created Pset.

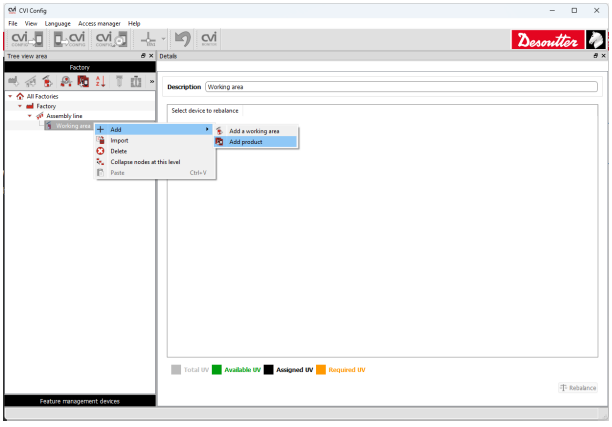
Creating a Tightening Unit with CVI Config

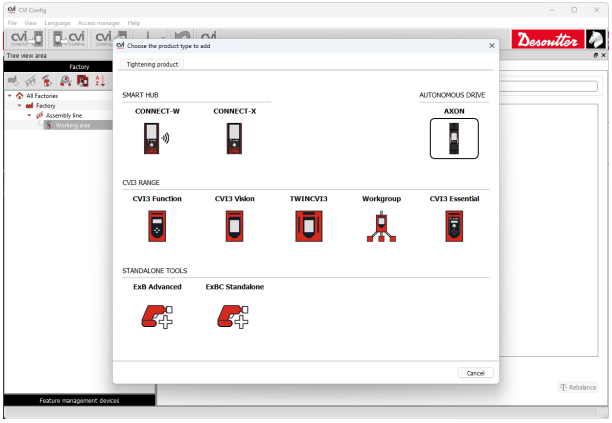
ⓘ Before starting, check that the module contains **enough UVs** for the planned configuration. If not, go to the chapter *Adding a Feature [Page 52]*.

1. Create a working area.

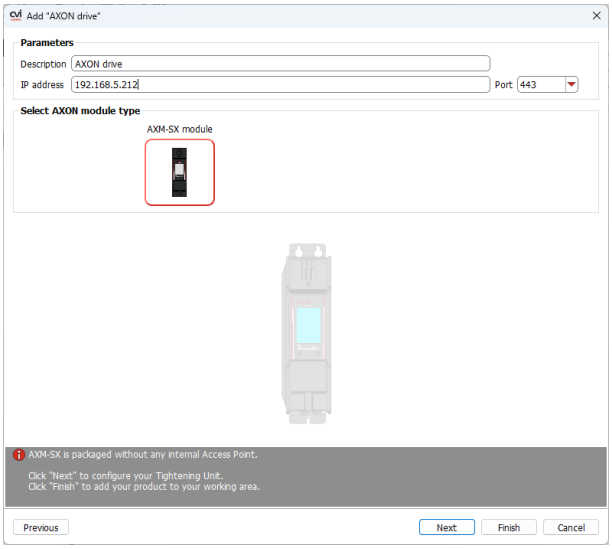


2. Add **AXON**.

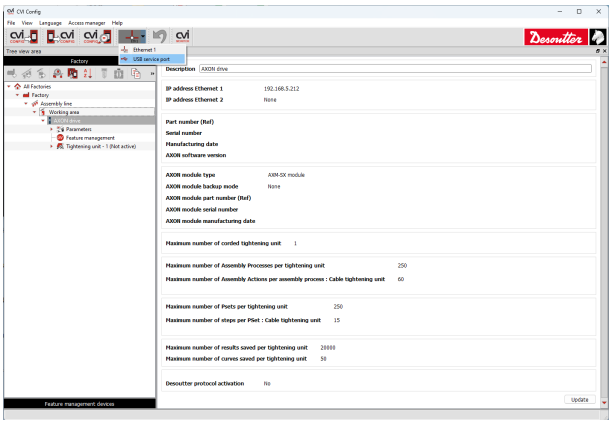




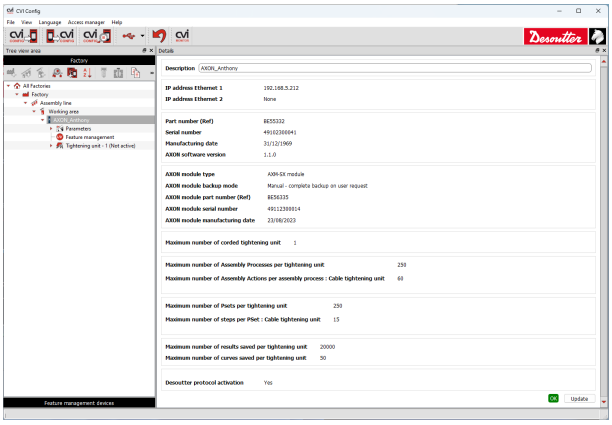
3. Configure the IP address (by default IP address is : **192.168.5.212**).



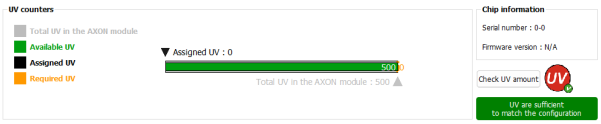
4. If USB cable is used to communicate with AXON, then select **USB service port** configuration.
   Otherwise, keep **Ethernet 1** to use the ethernet cable to communicate with AXON.



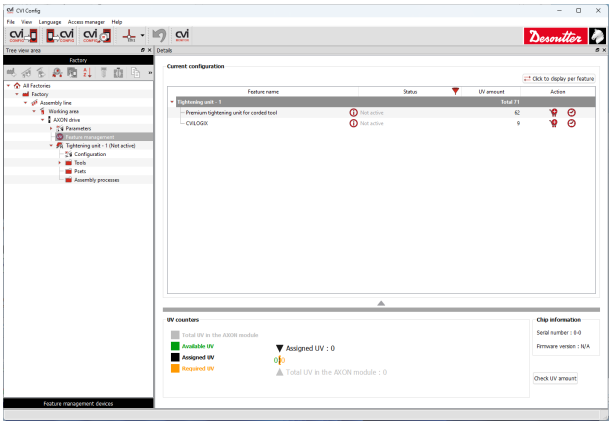
5. In the AXON DRIVE panel, click on update button. A green OK indicates the communication is established.

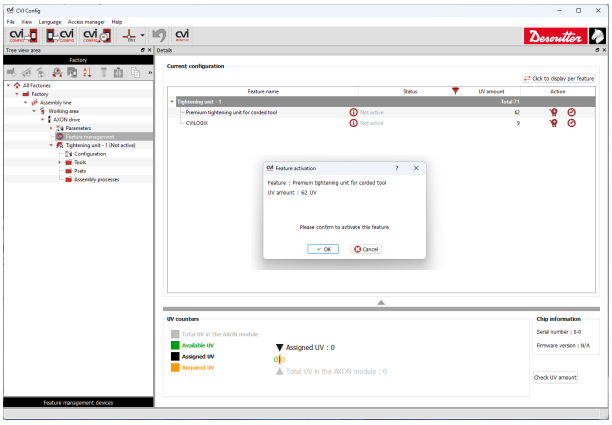


6. Go to Feature management. Click on Check UV button to read UV available.



7. If available number of UVs are enough to create a tightening unit, select the tightening unit and click Activate.





Relevant Information

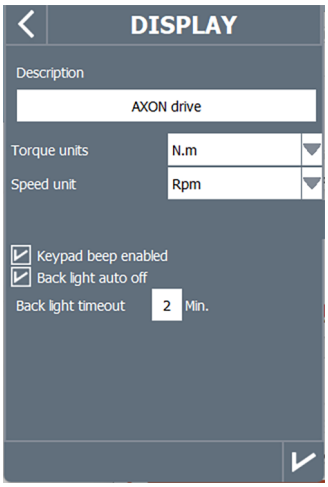
- Connecting the Computer with Ethernet Cable [14]
- Connecting the Computer with USB Cable [15]

Setting up display parameters

1. Select the main menu:

Then select: System > User interface > **Display**

2. The following settings can be modified:
   - System Description
   - Torque / Speed units
   - Keypad beep
   - Back light auto off & timeout



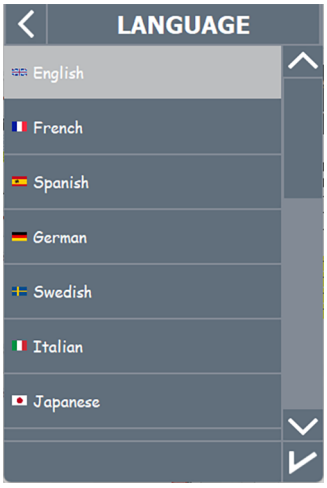
3. To validate the settings, press the icon:

Setting up language

1. Select the main menu:

Then select: System > User interface > **Language**

2. The following languages are available:
   - English
   - French
   - Spanish
   - German
   - Swedish
   - Italian
   - Japanese
   - Chinese
   - Polish
   - Russian
   - Portuguese
   - Dutch
   - Portuguese (Brazil)
   - Korean
   - Czech
   - Magyar
   - Romanian
   - Turkish
   - Slovakian



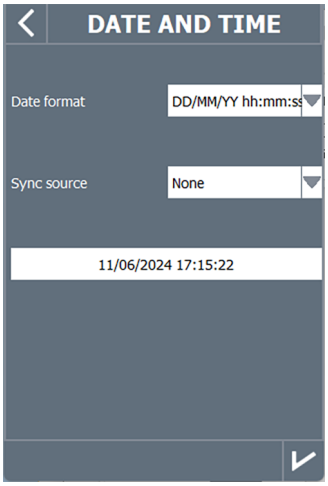
3. To validate the settings, press the icon:

Setting up Date & Time

1. Select the main menu:

   Then select: System > User interface > **Date & Time**
2. Date format display can be modified with the following possibilities:
   - DD/MM/YY hh:mm:ss
   - YY/MM/DD hh:mm:ss
   - MM/DD/YY hh:mm:ss

3. Select the source for the Date synchronisation:
   - None
   - CVI Config
   - CVI Net
   - Fieldbus
   - Ethernet protocol
   - Server NTP
   - Other CVI system
   - ToolsNet



4. To validate the settings, press the icon:

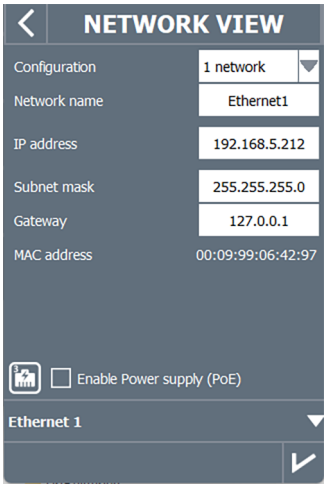
Setting up network configuration

1. Select the main menu:

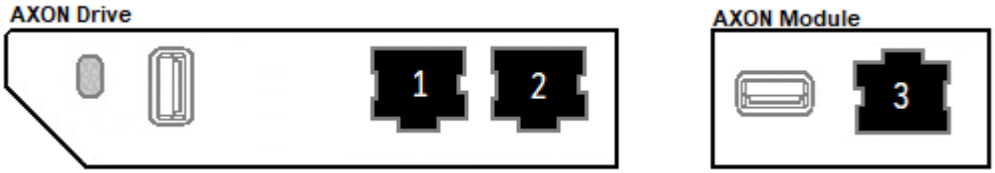
Then select: Configuration > System > Peripherals > **Networks**

ⓘ Default AXON Ethernet configuration is:

Item	Desoutter default parameter
Configuration	1 network (network name: Ethernet 1)
IP address (Ethernet 1)	192.168.5.212
Subnet mask	255.255.255.0
Gateway	127.0.0.1
Power supply (PoE)	Disabled

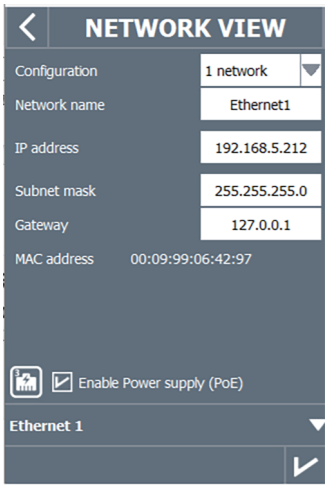


With configuration set to 1 network, the 3 ports (1, 2, 3) are associated to the Ethernet 1 settings:



2. IP address / Subnet mask or gateway can be modified directly from AXON user interface:

3. Enable / disable the Power over Ethernet / Power Supply (PoE):



ⓘ Power over Ethernet is only available on AXON module port Ethernet 3

4. To validate the settings, press the icon:

Setting up a simple Pset

Setting the Running Mode to Pset

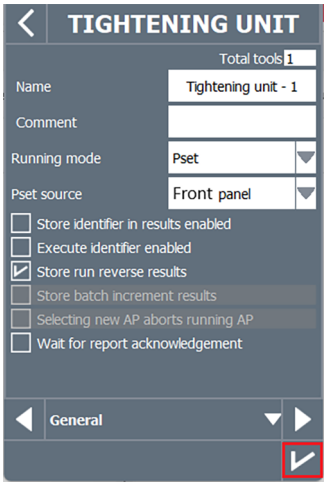
1. Select the main menu:

Then select: Configuration > **Tightening unit**

2. Select the tightening unit in the list

3. Press this icon to edit:

4. In Running mode, select "Pset"



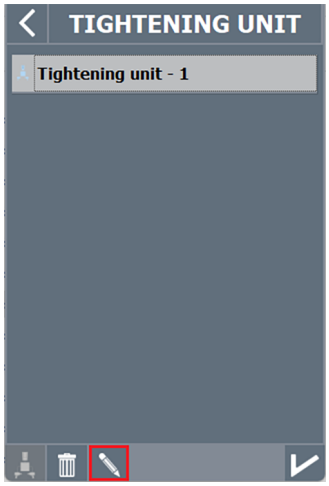
5. To validate the settings, press this icon:

Selecting the source to start the Pset

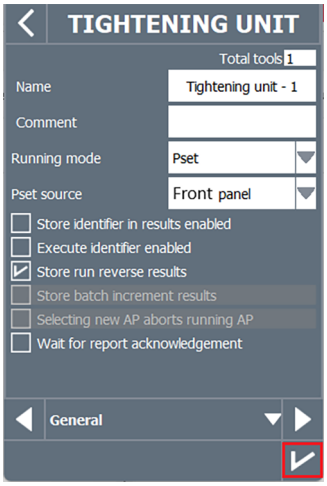
1. Select the main menu:

Then select: Configuration > **Tightening unit**

2. Select the tightening unit in the list
3. Press this icon to edit:



4. In Pset source, select "Front panel"



Other possibilities are as follows:

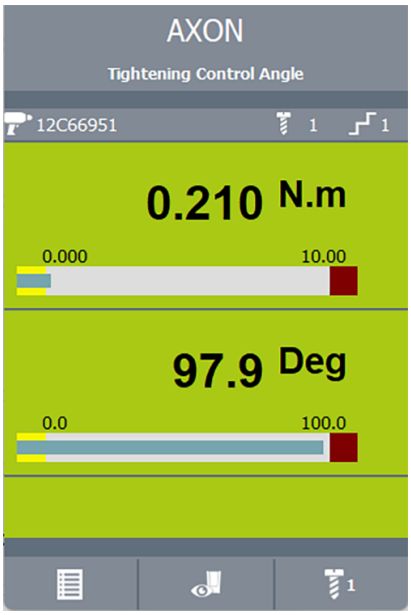
- I/O
- Front panel
- CVILOGIX
- Open Protocol
- Fieldbus
- Internal
- Socket/bit tray
- Customized protocol

5. To validate the settings, press this icon:

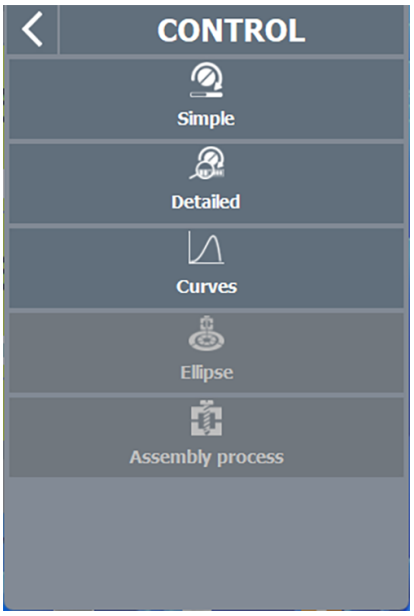
Executing the Pset

ⓘ To select another Pset or Assembly process, please consult this page

1. Press the tool trigger to run Pset 1.
   By default, the simple view is displayed.



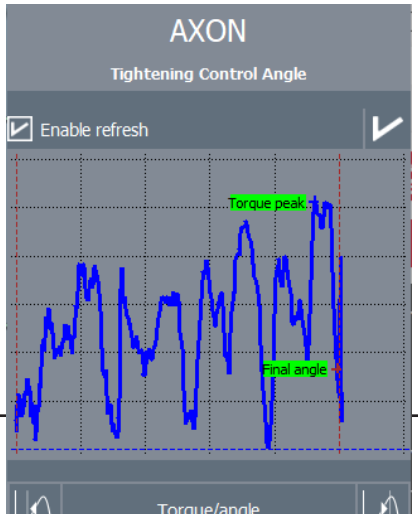
2. To see the other possible views, select this icon:



ⓘ The view you will select now will be the one by default for the next tightenings.

Detailed view:

Curves view:



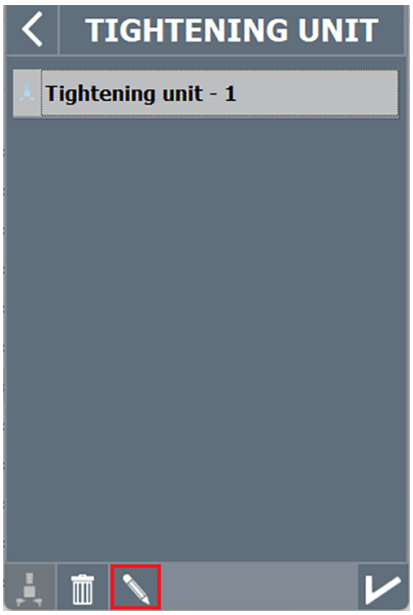
Setting up an Assembly Process

Setting the Running Mode to Assembly Process

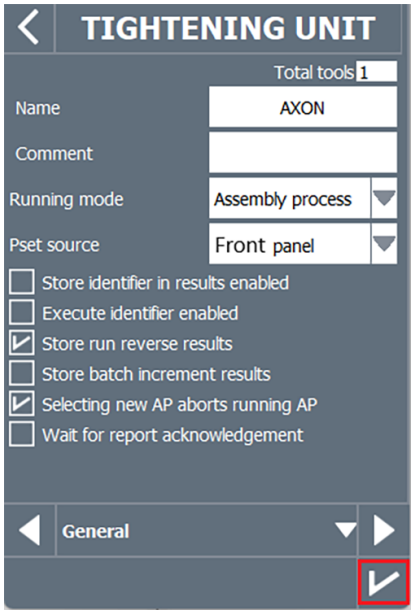
1. Select the main menu:

Then select: Configuration > **Tightening unit**

2. Select the tightening unit in the list
3. Press this icon to edit:



4. In Running mode, select "Assembly process"



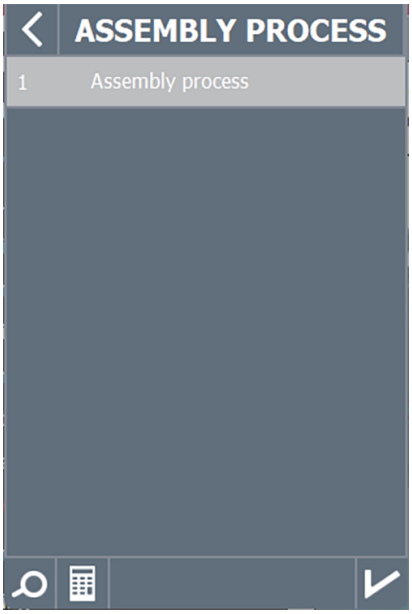
5. To validate the settings, press this icon:

Executing the Assembly Process

ⓘ To select another Pset or Assembly process, please consult this page

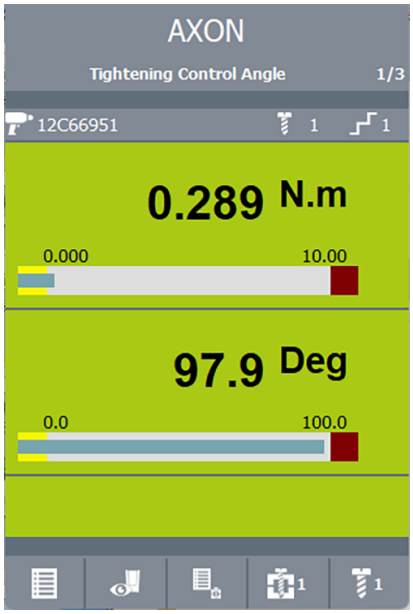
1. To access the Assembly Process, select this icon:

2. Select **Assembly Process** in the list.

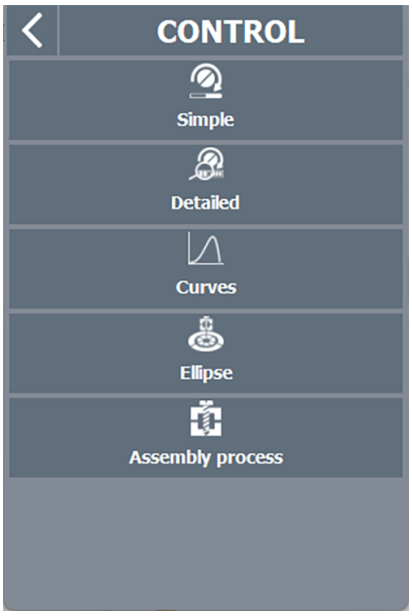


The tool is ready to execute Assembly Process 1 with Pset 1.

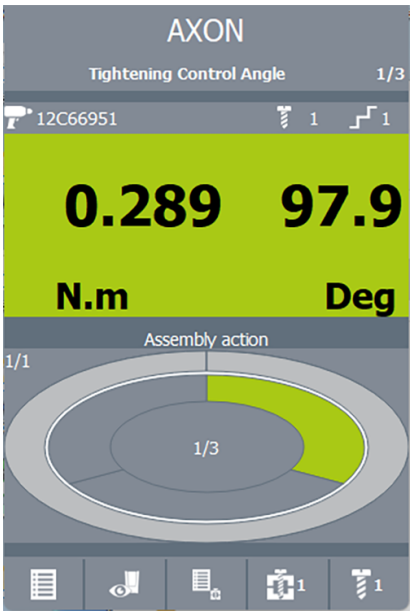
3. Press the tool trigger to execute the Assembly Process
   By default, the simple view is displayed



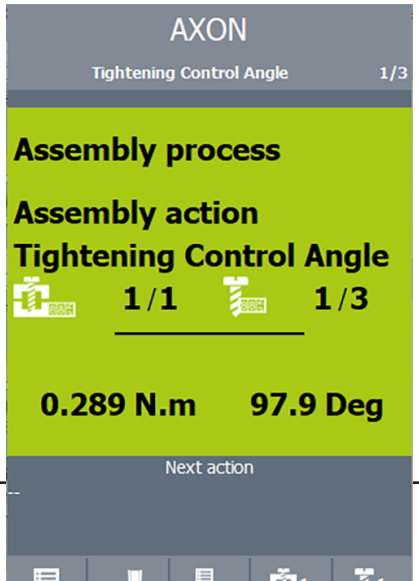
4. To see the other possible views, select this icon:



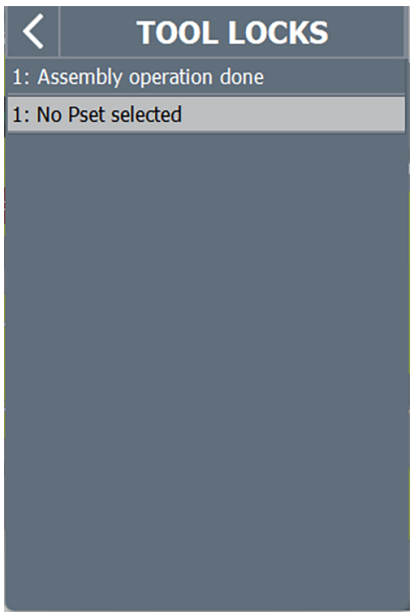
Ellipse view



Assembly process view



5. Select this icon to see the reason why the tool is locked:

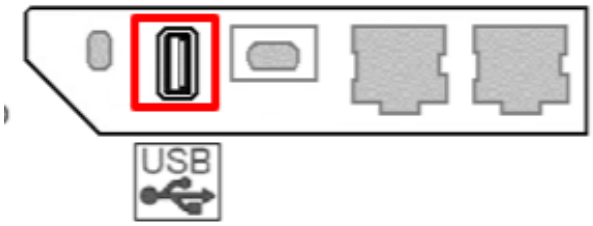


Setting up eBUS Accessory with CVI Config

With USB to CAN adapter kit (Part Number: 6158136800), **AXON** is compatible with all Desoutter eBUS accessories.

Items	Part Number
I/O EXPANDER	6159360740
SOCKET TRAYS	6159360710
BIT TRAYS	6159360800
OPERATOR PANEL	6159360720
STACK LIGHTS	6159360730

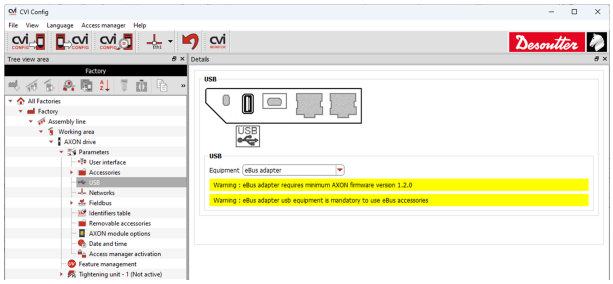
The USB connector from USB to CAN adapter should be connected only to AXON DRIVE USB.



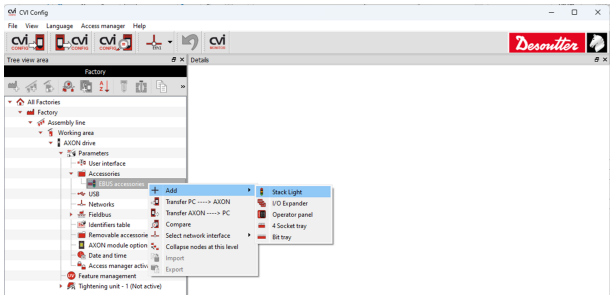
Maximum number of accessories is limited to 15 and maximum power consumption authorized set to 1 A. See eBUS accessories power consumption.

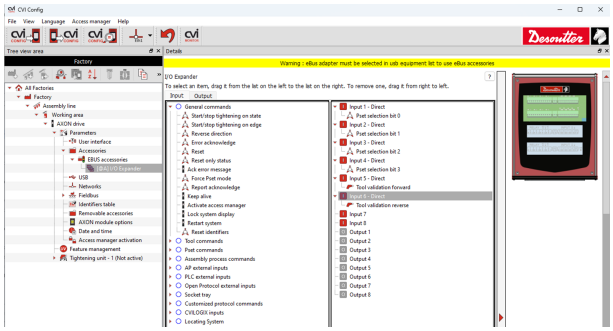
Usage can create a daisy chain of several accessories. According to the accessory type, one or several power injectors may be required.

For example : use eBUS I/O EXPANDER in CVI Config , in AXON configuration declare eBUS adapter as USB equipment.



add eBUS accessory associate events to eBUS accessory. See the figure below:





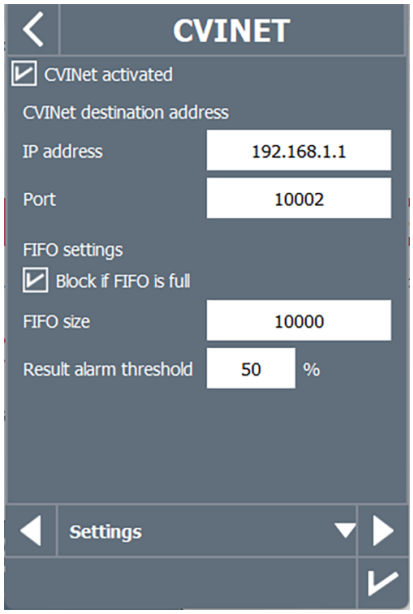
Sending Results to CVINET WEB Database

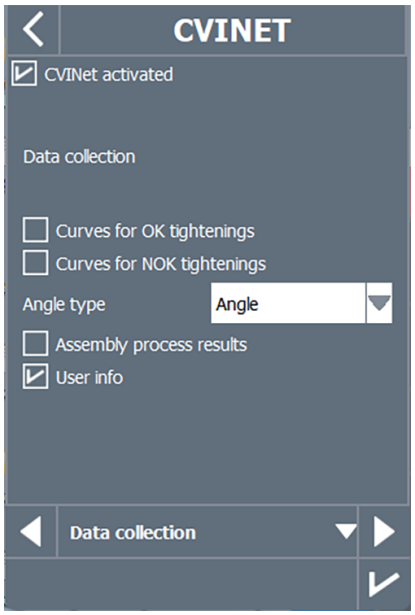
1. Select the main menu:

Then select: System > Peripherals > **CVINET**

CVINet settings are available on following pages:

- Settings
- Data collection





2. To validate the settings, press the icon:

Setting up Fieldbus

Refer to the user manual (printed matter: 6159929610) available at https://www.desouttertools.com/resource-centre.

Operating Instructions

Selecting Another Pset or Assembly Process

1. In Assembly Process mode, to display the list of available Assembly Processes, press this icon:

2. In Pset mode, to display the list of available Psets, press this icon:

3. Select the Pset or Assembly Process in the list, or to display the full description, press this icon:

4. To type directly the Pset or Assembly Process number in the digital keyboard, press this icon:

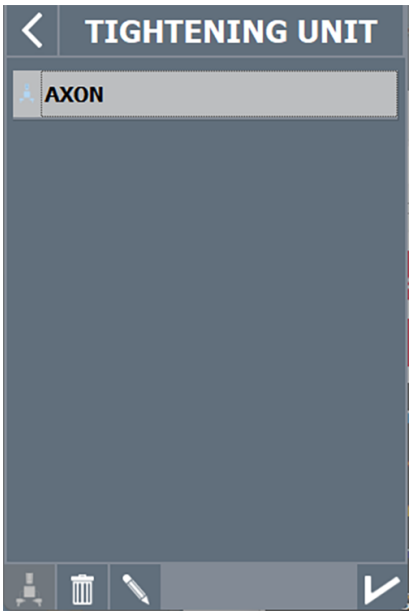
5. To validate the settings, press this icon:

How to get and read curves

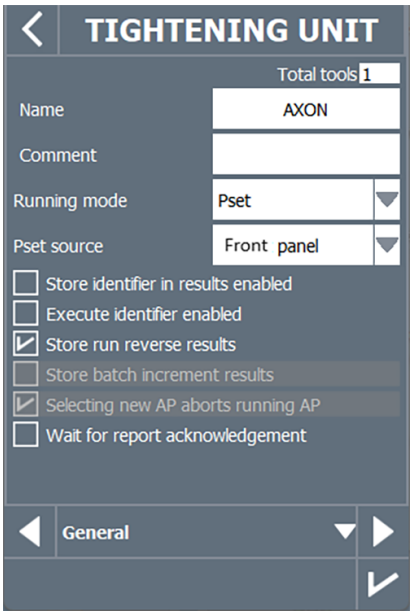
How to get curves displayed

1. Select the main menu:

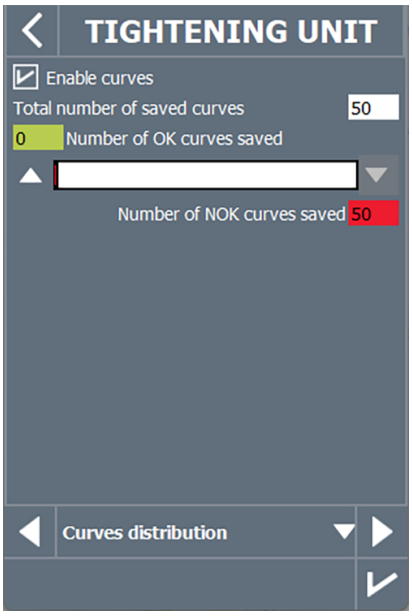
Then select: Configuration > **Tightening unit**



2. Select the tightening unit in the list.
3. Press this icon to edit:



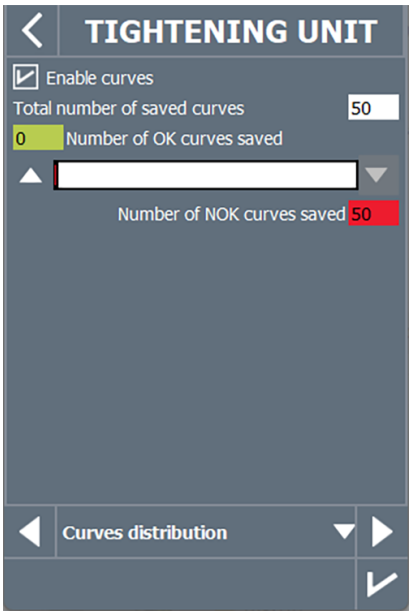
4. Press this icon to access the screen **Curves distribution**.



5. By default, curves are enabled.

   The last 50 curves are saved with the following ratio: **25 OK, 25 NOK**.

   For example, this ratio can be modified to save only NOK curves:



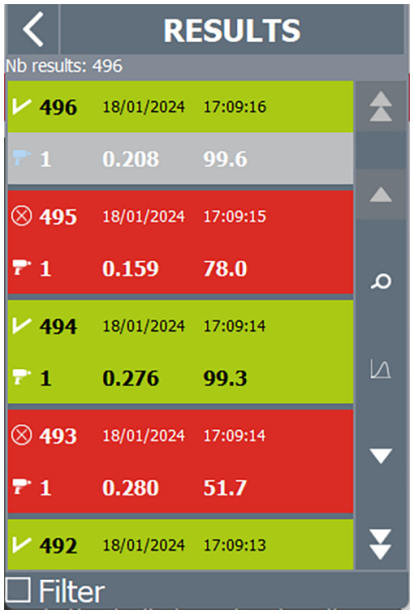
How to read Curves

ⓘ The following examples describes how to read curves for result ID **496**

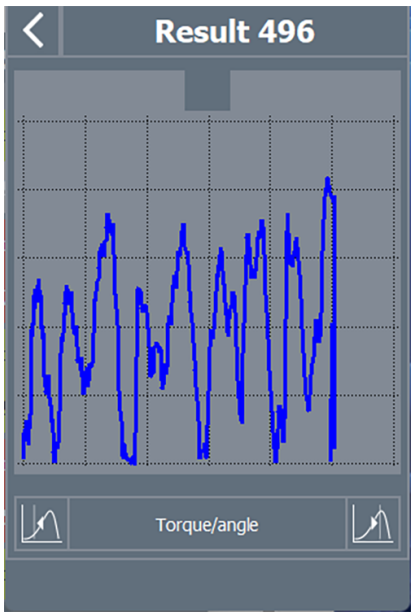
1. Select the main menu:

   Then select: **Results**

2. Press the torque value of result **496**.
   The line turns grey.



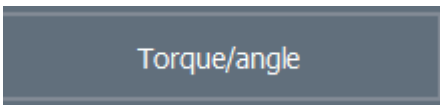
3. Press this icon to read the curve:



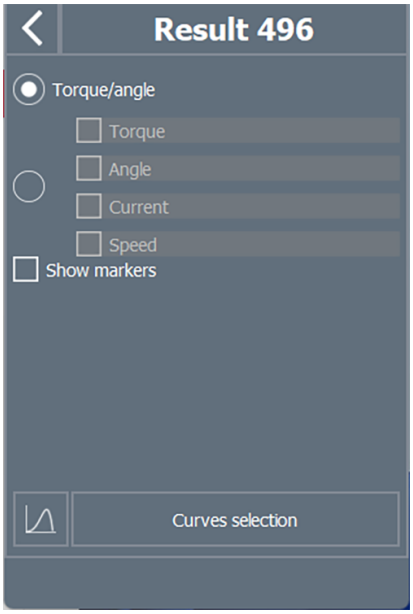
1. Press this icon to go to the last value:

2. Press this icon to go to the first value:

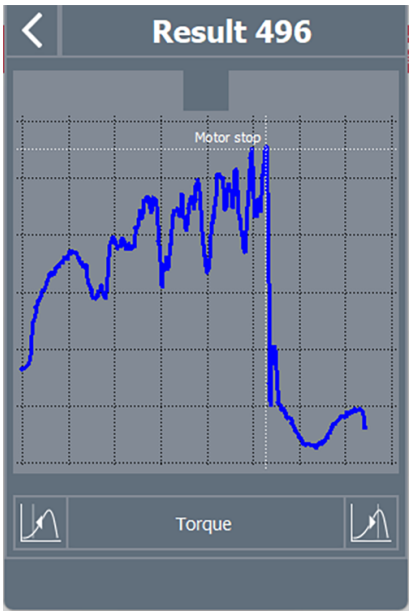
3. To get more information about the result, press this area:



4. Press the values you want to have by default each time a curve is displayed



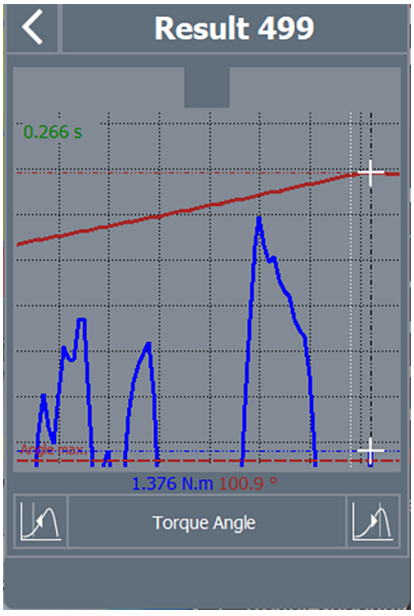
5. Press **Curves selection** to validate your selection.
6. Tick **Show markers**. For example:



How to Zoom in the Curve

1. Slide from the top left to the bottom right to zoom in a particular area.

2. Slide from the top left to the bottom right to zoom in a particular area.



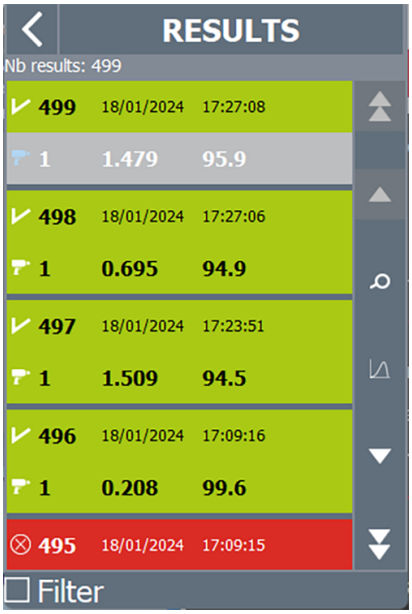
3. Press anywhere to return to the initial screen.

How to get and read results

Displaying the results

1. Select the main menu:

2. Select: **Results**

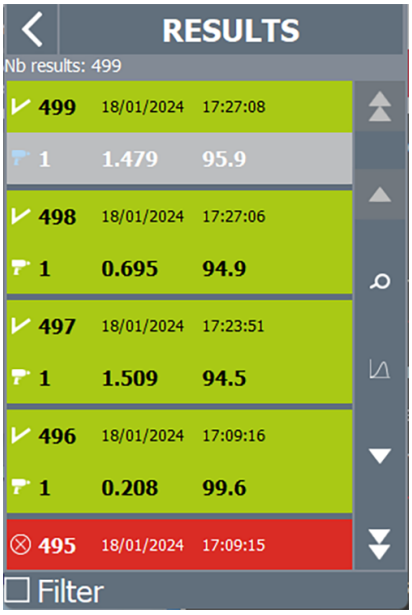


- A green line indicated that the report is OK.
- A red line indicated that the report is NOK.
- The line turns grey when you select it.
- There are 2 lines per result:
  - The first line shows the result number and the date and time of the result
  - The second line shows the number of the tightening unit and the torque/angle values
- Up to 20,000 results can be saved per tightening unit.
- Use the arrows to scroll in the list.
- The most recent results are displayed on the top of the list.
- The number of results is displayed on the top.

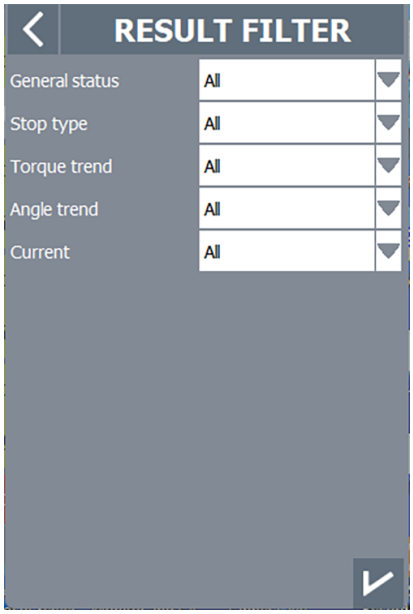
Filtering the Results

1. Select the main menu:

Select: **Results**

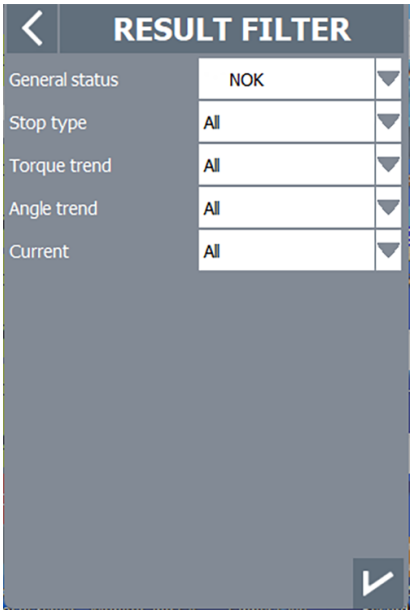


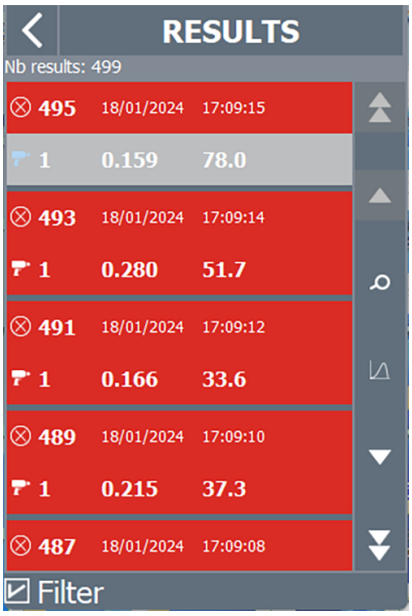
2. Select **Filter**.



3. Use the arrow to see criteria for all those following filters:
   - General status
   - All
   - OK
   - NOK
   - Loosening
   - Angle value
   - Stop type
   - All
   - No stop
   - Overcurrent
   - Trigger release
   - External or internal stop
   - Timeout
   - Target reached
   - Abort torque / angle / torque rate min. / torque rate max.
   - Overall angle max.
   - Stick slip detected
   - Slip off detected
   - Rehit detected
   - Yield point reached
   - Torque / Angle / Time stop
   - Remove fastener torque limit
   - Hardware failure
   - Unknown
4. To validate the settings, press this icon:

5. For example choose to display **all NOK result filter**

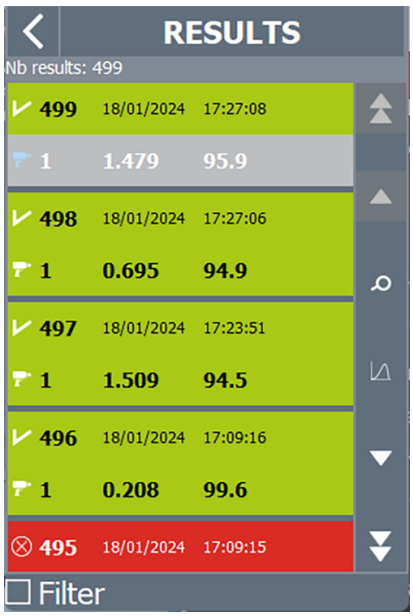




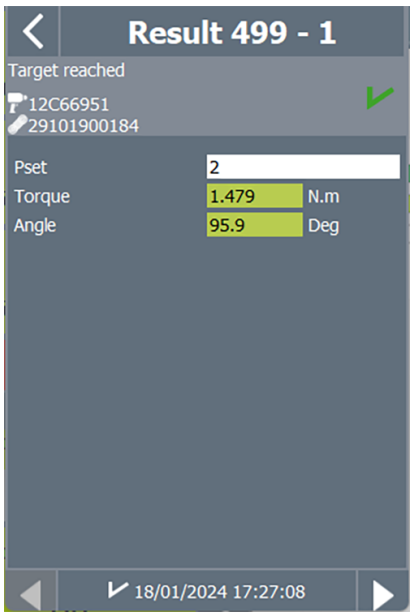
Displaying result information

1. Select the main menu:

Then select: **Results**



2. Select a result and press this icon:



The following information is displayed:

- Stop
- Source
- Tool serial number
- Pset number
- Torque value
- Angle value

3. Press this icon to see the next result:

Service

About features

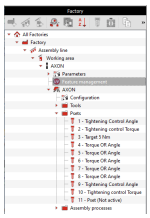
Reading the status of features

Status	Description
Not active	The feature is configured in the Tightening unit settings but **NOT** activated in the pane "Current configuration".
Active	The feature is configured in the Tightening unit settings **AND** active in the pane "Current configuration".
Available	The feature is **NO MORE** configured in the Tightening unit settings **AND NOT** active in the pane "Current configuration".

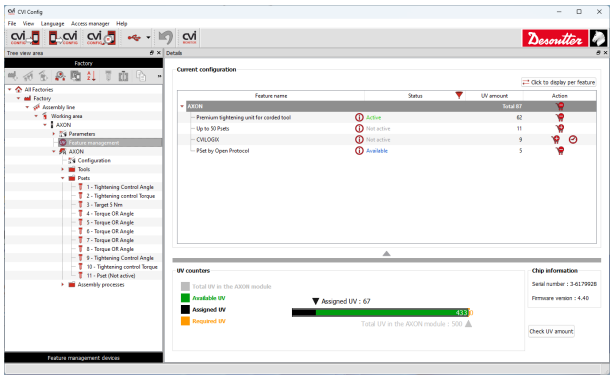
Adding a Feature

The following procedure is valid for any kind of feature. The example described here is about adding the feature Up to 50 Psets.

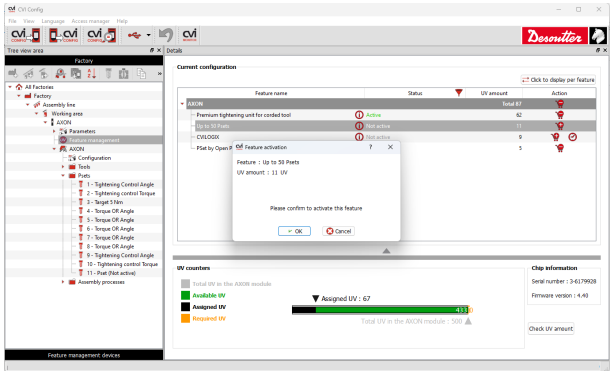
1. On CVI config Select AXON.
2. Create 10 Psets.
3. Select Tightening unit - 1.
4. Add 1 additional Pset.
5. See that Pset 11 is not active.



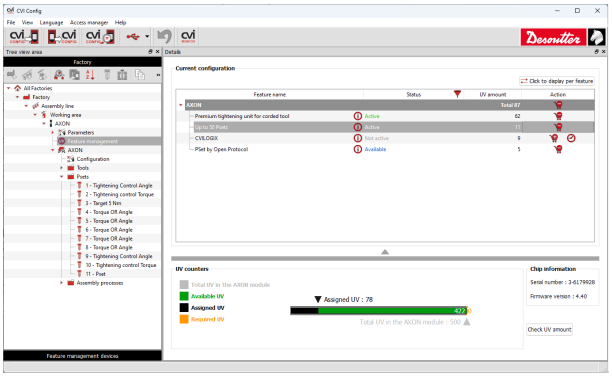
6. Go to the tree view and click **Feature management**.



7. Select Feature Up to 50 Psets and activate feature by pressing plus button.



8. As soon as feature has been authorized, you can see : - Pset 11 is active - feature UV has been added to the number of assigned UV.



How to save and back up data

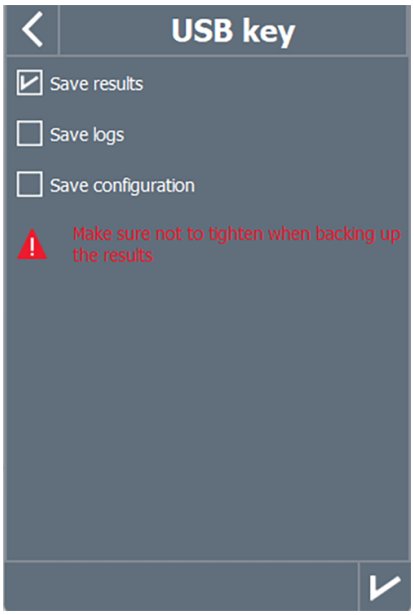
Saving Results on a USB key

ⓘ Make sure not to tighten during the backup of results.

1. Plug a USB key to the module or the AXON DRIVE.
2. Select the main menu:

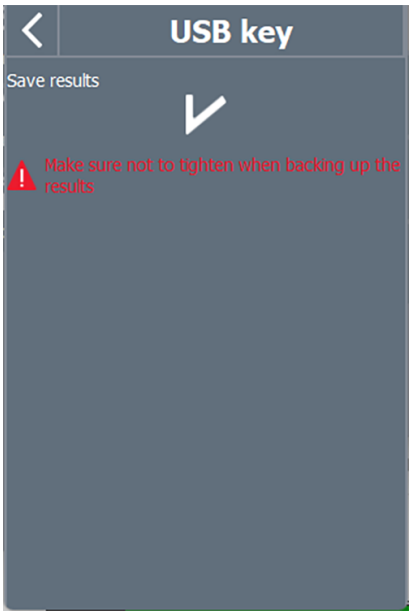
Then select: Maintenance > System > USB key > **Save**

3. Tick the box **Save results**



4. To validate the settings, press this icon:

A tick is displayed as soon as all results have been saved on the USB key.

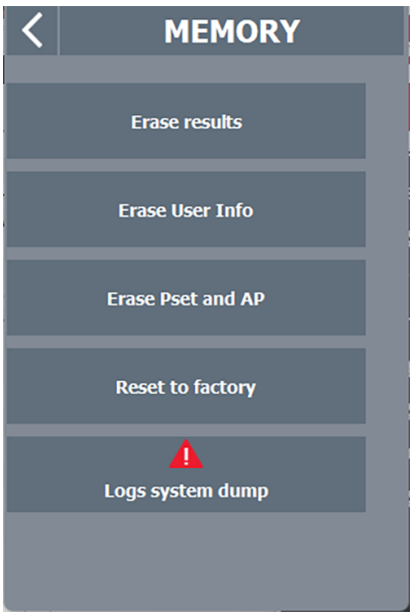


5. The USB key can now be safely removed from AXON.

Deleting Results from AXON DRIVE

1. Select the main menu:

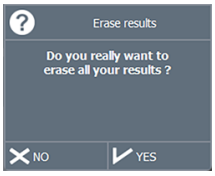
Then select: Maintenance > System > **Memory**



2. Press **Erase results**

A pop-up is shown asking you to confirm.

3. Press **YES** or **NO** to confirm the action

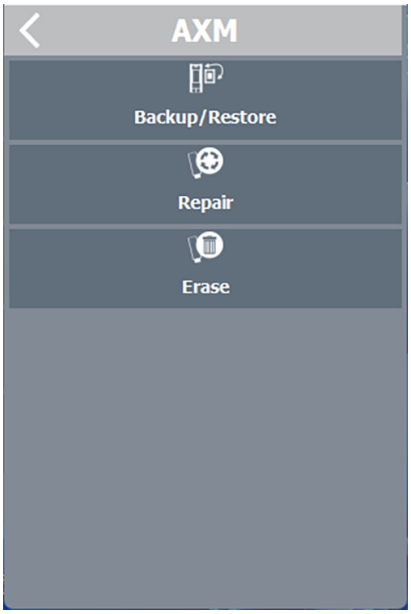


If YES is selected, all results from AXON DRIVE will be erased.

Deleting Results from AXON MODULE

1. Select the main menu:

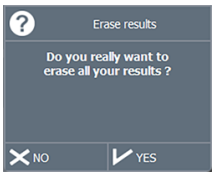
Then select: Maintenance > **AXM**



2. Press **Erase**

A pop-up is shown asking you to confirm.

3. Press **Yes** or **NO** to confirm the action



If YES is selected, all results from AXON MODULE will be erased.

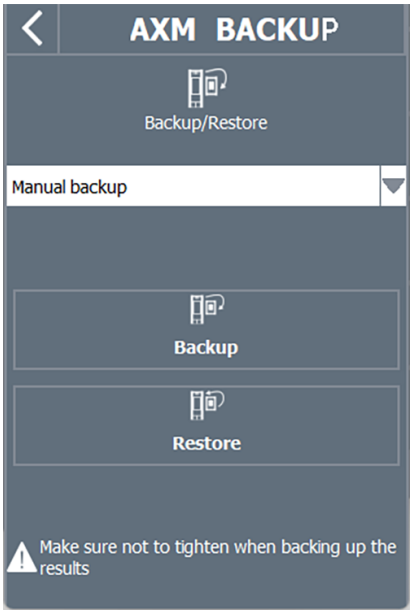
Performing AXON manual backup

Make sure not to tighten when backup is in progress

1. Select the main menu:

Then select: Maintenance > AXM > **Backup /Restore**

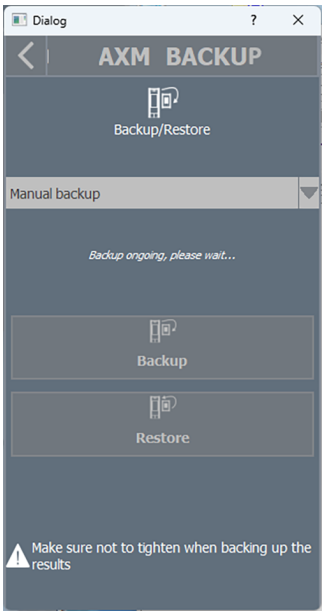
2. Select **Manual backup** to perform AXON DRIVE data backup in the AXON MODULE



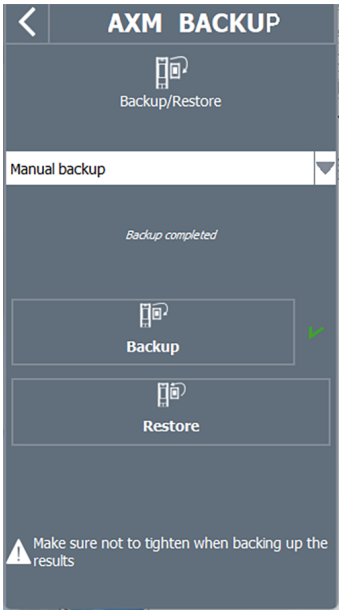
ⓘ Backup data: Configuration, results and AXON firmware.

3. Press **Backup** to start the process

ⓘ Make sure not to tighten when backup is in progress



4. A tick is displayed as soon as the backup is done.



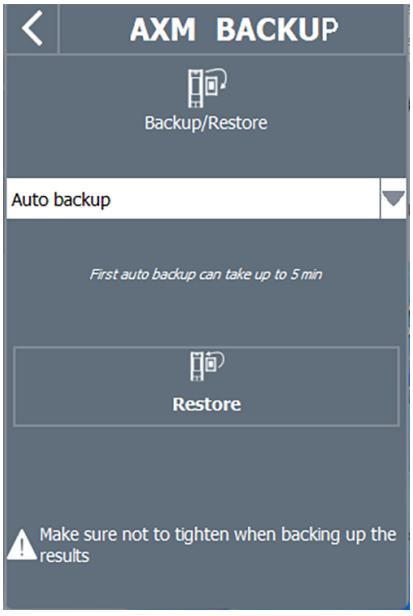
Performing AXON auto backup

ⓘ Make sure not to tighten during the backup of results.

1. Select the main menu:

Then select: Maintenance > AXM > **Backup /Restore**

2. Select **Auto backup** to have **each data modification** (Configuration, results and AXON firmware) **saved in real-time**.



A pop-up is shown asking you to confirm.

3. Press **YES** to start the process

ⓘ Configuration, results and AXON firmware will be saved

A first auto backup can take up to 5 minutes.

Now the AXON data have been replicated automatically inside the AXON MODULE.

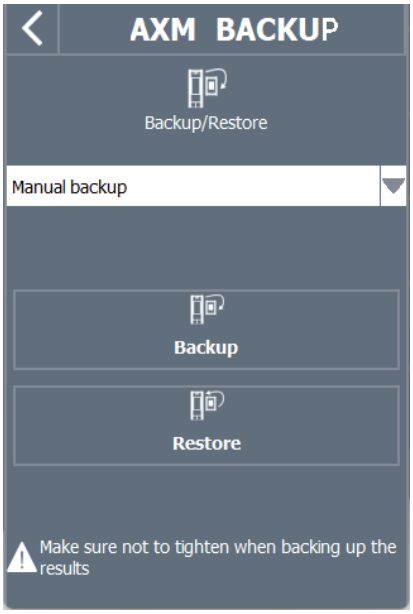
Transferring AXON MODULE Data to AXON

ⓘ Make sure not to tighten during the backup / restore of results.

1. Select the main menu:

Then select: Maintenance > AXM > **Backup/Restore**

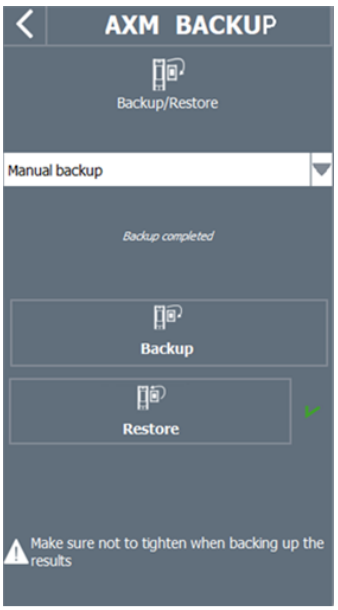
2. Select **Manual Backup**



3. Press **Restore** to start transferring data from AXON MODULE to AXON

ⓘ After restoring the configuration, results and AXON firmware will be updated

4. A tick is displayed as soon as the backup is done



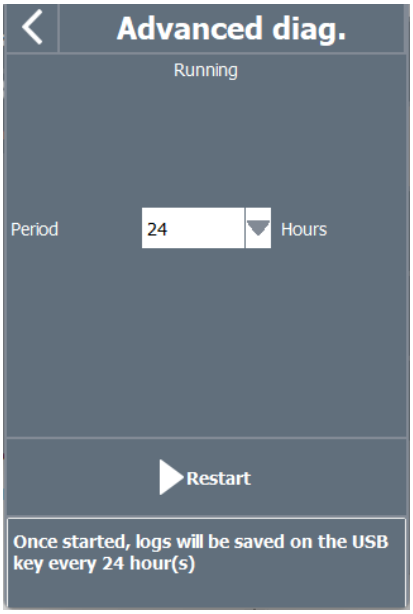
Saving Logs Automatically

1. Plug a USB key to the bottom panel.

2. Select the main menu:

Then select: Maintenance > System > USB key > **Advanced diagnosis**

3. Select a period in hours:
   - 1 hour
   - 2 hours
   - 6 hours
   - 12 hours
   - 24 hour

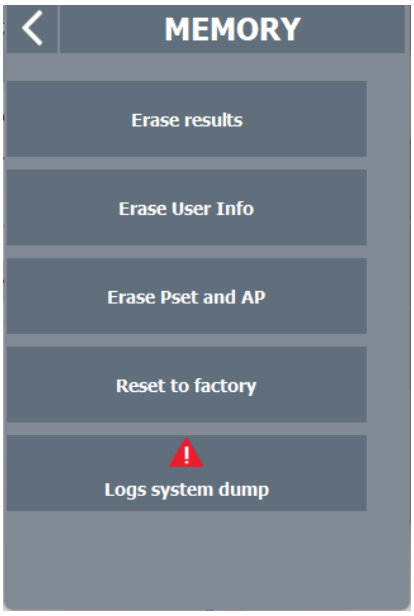


4. Once started, logs will be saved on the USB for every defined period.

Reset to Factory settings

1. Select the main menu:

Then select: Maintenance > System > **Memory**



2. Press **Reset to factory**

ⓘ All data (configuration, Pset / AP, results, curves) will be erased

3. A pop-up appears asking you to confirm.
4. Press **YES** or **NO** to confirm the action

Tool maintenance

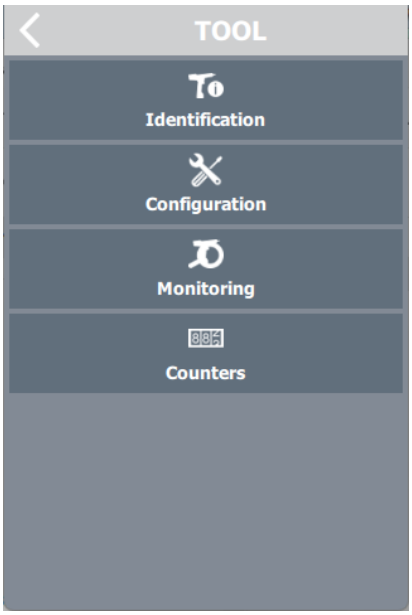
Getting Information About Tools

The available information in Tool menu and its submenus are in read only.

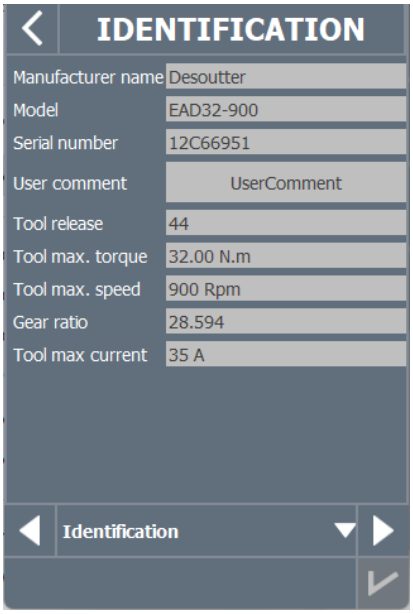
ⓘ The tool must be connected.

1. Select the main menu:

Then select: Maintenance > **Tool**



2. Press the tool trigger to wake up the tool
3. Select **Identification**



The following elements identify the tool:

- Manufacturer name
- Model
- Serial number
- User comment
- Tool release
- Tool maximum torque
- Tool maximum speed
- Gear ratio
- Tool maximum current

4. For example :

   Press this icon to display the other pages:

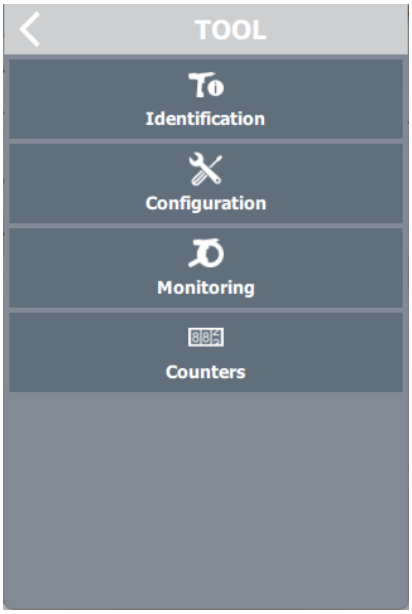
   The characteristics of the tool are:

   - Tool type
   - Tool family
   - Production date
   - Motor type
   - Application version
   - Hardware version
   - Boot loader version

   For example :

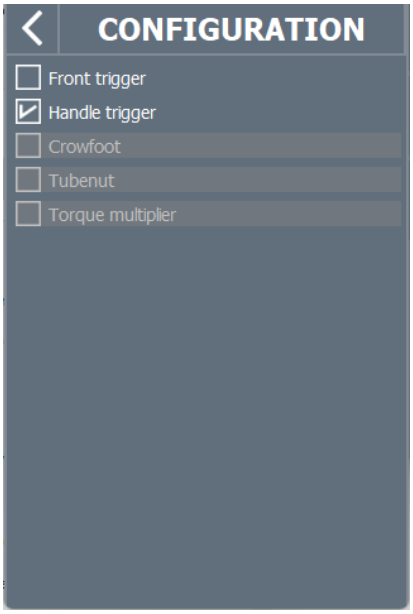
5. From the **Tool** menu (see first instruction), press **Configuration**



The configuration menu lists the triggers used and the accessories mounted on the tool:

- Handle trigger
- Front trigger
- Push start
- Crowfoot
- Tubenut
- Torque multiplier
- Barcode reader
- Front light
- I/O accessory

For example:



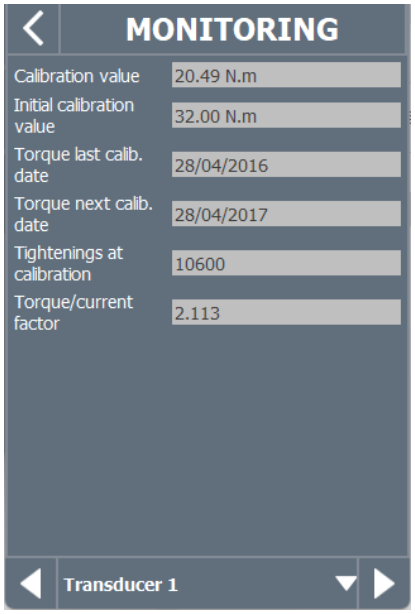
ⓘ Changing the tool configuration is performed by Desoutter technicians only. It is mandatory to calibrate the tools after they have been modified.

Contact your Desoutter representative to get more information and support.

Monitoring the Tool Calibration Status

1. Select the main menu:

Then select: Maintenance > Tool > **Monitoring**



2. When the date of the next calibration is reached, a pop-up appears on the tool display asking to perform the calibration.

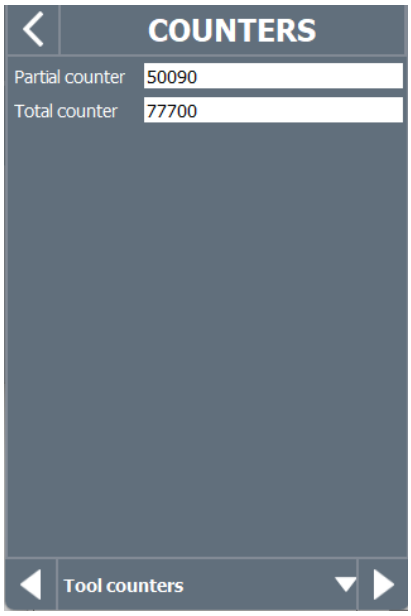
ⓘ Calibration is performed by Desoutter technicians only.

Contact your Desoutter representative to get more information and support.

Monitoring the Tool Counter

Select the main menu:

Then select: Maintenance > Tool > **Counters**



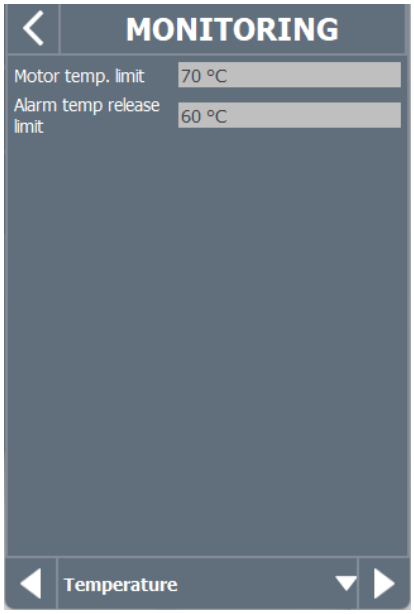
- The total counter gives the number of tightenings and run reverses above the tool minimum torque since the manufacturing date.
- The total counter gives the number of tightenings and run reverses above the tool minimum torque since the manufacturing date.

Monitoring the Tool Temperature

ⓘ The tool must be connected.

Select the main menu:

Then select: Maintenance > Tool > **Monitoring**



ⓘ When the temperature alarm is reached, a pop-up appears on the tool display. The tool is locked because the motor is too hot.

Leave the tool to cool down.

Occasionally press the trigger to check that the tool is still locked.

Maintenance instructions

Cleaning

If needed, clean the external panels by using a dry cloth.

Maintenance program

Please consult us on the **Tool Care** program that includes production support and maintenance solutions.

Spare parts

Exploded views and spare parts lists are available at https://www.desouttertools.com/resource-centre.

The use of spare parts other than those originally supplied by the manufacturer may result in a drop in performance or in increased maintenance and level of vibration and in the full cancellation of the manufacturer's liability.

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 in 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.

Checking before putting back into service

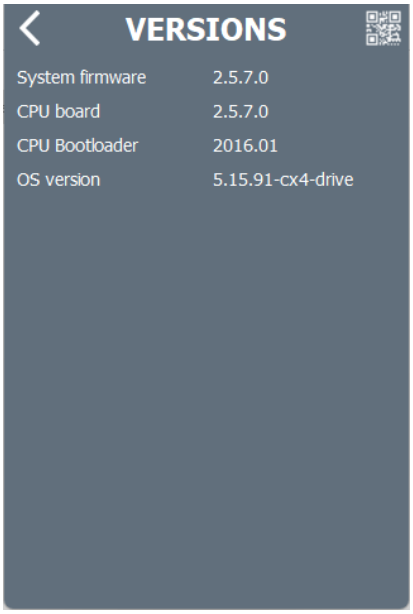
Prior to putting the equipment back into service, check that its main settings have not been modified and that the safety devices work properly.

AXON Firmware

Checking the Existing System Firmware

1. Select the main menu:

Maintenance > **Version**



2. Press this icon to quit:

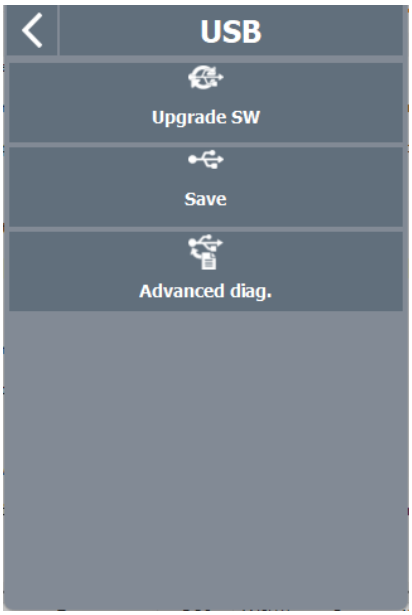
Upgrading the Firmware

ⓘ Contact your Desoutter representative to get the last version of firmware.

1. On receipt of the .zip file, unzip the file and copy / paste "**AXON**" files on the root of the USB key
2. Plug the USB key into the bottom panel port of AXON

3. Select the main menu:

Then select: Maintenance > System > **USB Key**



A pop-up is shown asking you to confirm.

4. Press **YES** or **NO**

The controller beeps during 2 seconds and starts the process.

ⓘ Do not switch off the controller. Wait for the automatic reboot.

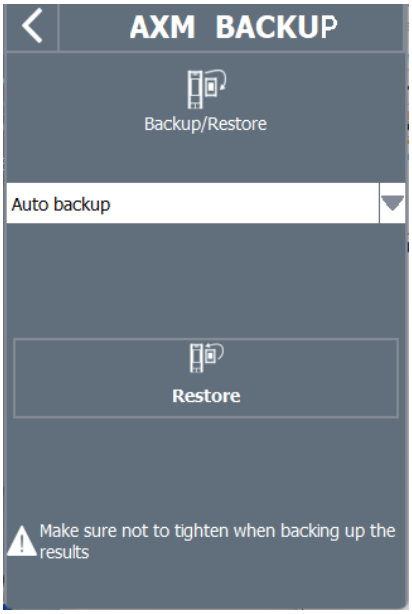
The update lasts a few minutes. When the upgrade is finished, the green LED of the controller remains steady.

Troubleshooting

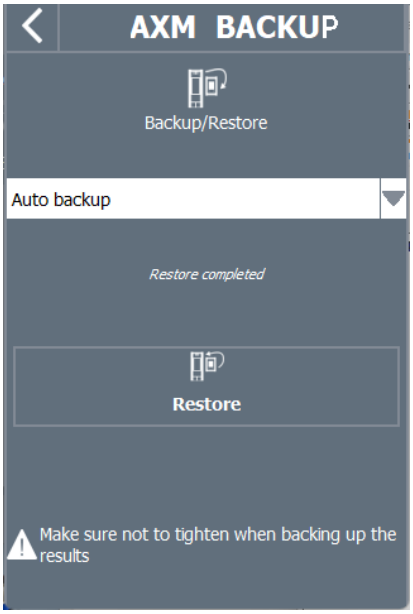
Using an Existing AXON MODULE Into Another AXON

1. Refer to the chapter:*Installing the Module [Page 13]*
2. Select the main menu:

Then select: Maintenance > AXM > **Backup / Restore**



3. Press **Restore** to overwrite the content of AXON.



ⓘ Restore operation transfers data from AXON MODULE to AXON: the configuration, results and AXON firmware will be taken from AXON MODULE.

4. AXON will re-start automatically.

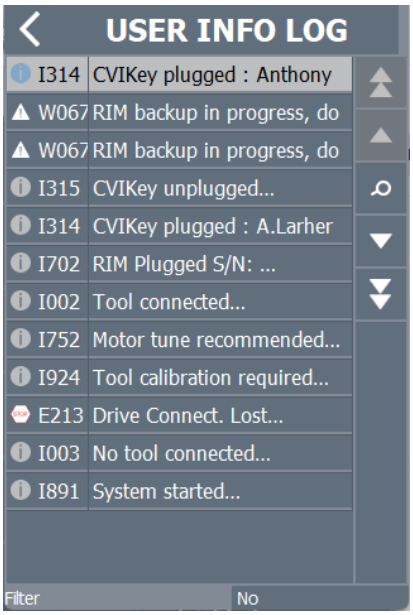
Monitoring the System by Using the User Information

ⓘ Use the user information to monitor and analyze all actions performed by the system.

User can check for example, when a tool has been paired or if a Pset has been modified.

1. Select the main menu:

Then select: Maintenance > **User info log**



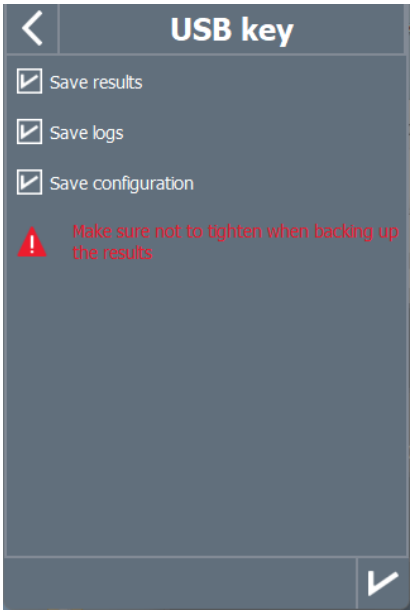
2. The most recent event is on the top.
3. Select a log to get the details.
4. Use the up and down arrows to scroll in the list.
5. Tick the box **Filter** to display the filtering options.
6. Refer to the chapter *List of user infos [Page 71]* in this manual to get the complete list of Warning errors

Information to Send to Desoutter support

If you think that the product is not functioning properly or if you encounter unexpected behaviors, do not hesitate to contact your **Desoutter** representative for support.

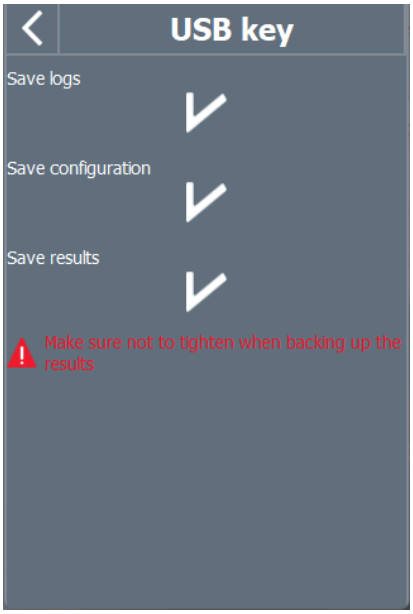
Provide your contact with a zip file containing results, logs and configurations. Proceed as follows;

1. Plug a USB key to the bottom panel.
2. Select System > USB key > **Save**.
3. Tick all boxes.



4. Select this icon to validate:

5. This screen displays as soon as all files have been saved in the USB Key



6. Remove the USB key and plug it to your computer.
7. Go to the root of the USB key and zip all folders into one.
8. Send the zip file to your **Desoutter** representative.

List of user infos

List of user infos related to the system

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
I001	Tubenut open	1- Tubenut tool is detected as open.
I002	Tool connected	1- The tool is connected and correctly recognized by the system.
I003	No tool connected	1- The tool has been disconnected. 2- If the tool is not physically disconnected, check the tool cable.
I015	Tool lock on reject	1- The tool is locked forward after a NOK. 2- Unlock the tool in function of the "lock on reject option" selection i.e. by reversing, loosening or input.
I016	Tool lock by Open Protocol	1- Tool has been locked by Open Protocol. 2- Unlock the tool by sending an "Enable tool" message via Open Protocol.
I017	Loosening prohibited	1- Loosening is prohibited. 2- The loosening is disabled in the Assembly action. 3- The batch count type OK + NOK is used.

Number	Description	Procedure
I021	Maximum retries reached	1- The maximum number of retries has been reached. 2- The tool is locked. 3- The running Assembly Process has to be aborted.
I022	Lock wait socket	1- The tool is locked. Put all sockets back and lift the correct sockets combination.
I024	Loosening prohibited XML	1- Loosening is disabled by VWXML protocol.
I025	Tightening prohibited XML	1- Tightening is prohibited by VWXML protocol.
I040	Tool over speed	1- Motor speed exceeds 130% of its maximum value. 2- Check tool parameters (wrong motor tune parameters). 3- Contact your Desoutter representative for support.
I042	Tool locked by GeoPositioning system	1- Tool has been locked by GeoPositioning system. 2- Unlock the tool by moving the tool in its defined area.
I043	Tubenut maintenance	1- Tubenut settings need to be reconfigured. 2- Contact your Desoutter representative for procedure.
I044	GeoTracking/Positioning learning mode ongoing	1- GeoTracking/Positioning learning mode.
I049	Access denied	No procedure.
I050	Tool detection for pairing	No procedure.
I051	ePOD connected	ePOD connected.
I052	Incorrect network parameters	Incorrect network parameters
I053	No Tightening Unit available	No Tightening Unit available
I054	Pairing success	No procedure.
I055	eDOCK already present on system	No procedure.
I056	ePOD disconnected	ePOD disconnected
I057	Pairing error	No procedure.
I058	Tool locked by GeoTracking system	1- Tool has been locked by GeoTracking system. 2- Unlock the tool by moving the tool in its defined area.
I059	New tool detected	No procedure.
I060	Tool synchro ongoing	No procedure.
I061	ExBC connection conflict	1- Two ExBC are configured with the same network settings. 2- Verify communication ports and IP addresses.
I100	Cable ID invalid parameter	1- Invalid tool cable parameter. 2- Check that the tool cable is Desoutter certified. 3- Contact your Desoutter representative for support.
I101	Cable ID not detected	1- Tool cable communication error. 2- Check that the tool cable is Desoutter certified. 3- Contact your Desoutter representative for support.
I102	Cable ID not certified	1- Tool cable authentification error. 2- Check that the tool cable is Desoutter certified. 3- Contact your Desoutter representative for support.
I199	Console activated	1- The serial console is activated. 2- Warning: this console is dedicated to debug purposes only and should not be used in production.
I202	Fieldbus lost	1- Fieldbus connection with PLC is lost. - no heartbeat is received from PLC. - the cable is broken or disconnected. - the PLC is offline or not powered. 2- Check the Fieldbus configuration.
I204	Tool not validated	1- Tool locked by I/O. 2- Check I/O settings: "Tool validation" must be active to unlock the tool.

Number	Description	Procedure
I207	Assembly done	1- Assembly Process is done, the tool is locked. 2- Select a new Assembly Process to unlock the tool.
I208	Invalid run reverse parameter	1- Invalid Run Reverse setting: torque or speed are greater than tool characteristics or loosening strategy is not supported. 2- Check Pset settings with the current tool characteristics. 3- Reduce the maximum number of turns.
I209	Pset invalid parameters	1 - Software internal error. 2 - Pset is corrupted. Try to transfer it again to the system. 3 - If the error persists, contact your Desoutter representative for support.
I215	Current calibration error	1- Current calibration failed. 2- Try once again. 3- If the problem occurs again, contact your Desoutter representative for support.
I225	Error angle	1- Tool communication error. 2- Check tool and cable connections. 3- If the problem occurs again, contact your Desoutter representative for support.
I226	Error torque	1- Tool communication error. Check tool and cable connections. 2- Try once again. 3- If the problem occurs again, contact your Desoutter representative for support.
I234	Fieldbus mismatch	1-The Fieldbus module declared in configuration is not the same than the module connected to the system.
I237	Invalid data	1- The Fieldbus mapping has too many items.
I238	Invalid address	1- The device address affected to Fieldbus is invalid.
I239	Invalid communication settings	1- Fieldbus communication settings are invalid.
I241	CVINET FIFO alarm	1- CVINET FIFO has reached the alarm threshold, the connection is lost. 2- Check the Ethernet cable. 3- Check the Ethernet configuration. 4- Check that CVINET is running correctly.
I242	ToolsNet FIFO alarm	1- ToolsNet FIFO has reached the alarm threshold, the connection is lost. 2- Check the Ethernet cable. 3- Check the Ethernet configuration. 4- Check that ToolsNet is running correctly.
I244	Accessory disconnected	1- The accessory at the given address has been disconnected from the eBUS of the system. 2- Check the accessory cable.
I245	Wait report acknowledge	1- Acknowledge report with its corresponding input.
I254	Drive communication error	1- Error detected in drive communication. 2- Restart the system. 3- If the problem occurs again, contact your Desoutter representative for support.
I259	Reset input active	1- "Reset" input is active. 2- The tightening unit will unlock when input switches to "Inactive".
I261	Locked by IPM	1- IPM protocol has locked the system. 2- Check the connection with the IPM gateway. 3- Check the IPM configuration in the system.
I262	Open Protocol connection lost	1- Open Protocol connection has been lost.

Number	Description	Procedure
I263	Socket tray conflict	1- For this tightening unit, do not associate more than one socket combination to a Pset.
I264	Too many steps	1- Connect an ePOD3 to the system to enable more steps per Pset.
I266	Message:	Incoming message received with dynamic text.
I269	Pset modified	No procedure.
I271	External tool Pset selected	1- Tool is locked because of "External tool Pset" selection.
I275	Invalid eCompass Pset	1- Check tool is compatible with gyroscope (eCompass). 2- Else use a tool compatible with gyroscope. 3- Else edit your Pset to remove gyroscope settings.
I310	Identifier OK:	1- An identifier has been received and accepted. 2- The identifier is matching an Assembly Process start condition.
I311	Identifier NOK:	1- An identifier has been received. 2- The identifier does not match any Assembly Process start condition.
I312	Access expired	1- The access rights on the USB key cannot be read. 2- Unplug the key and insert it again. 3- If the issue is persistent, the access right file is probably corrupt. 4- Contact your "CVI Key" administrator.
I313	Access invalid	1- The access rights on the USB key cannot be read. 2- Unplug the key and insert it again. 3- If the issue is persistent, the access right file is probably corrupt. 4- Contact your "CVI Key" administrator.
I314	CVIKey plugged	No procedure.
I315	CVIKey unplugged	No procedure.
I316	Barcode lost	No procedure.
I400	Default network configuration	1- Network configuration has been set to default.
I401	Network configuration error	1- Network configuration failed. 2- Check your settings. 3- If the problem occurs again, contact your Desoutter representative for support.
I500	CVILOGIX user info	Message generated by CVILOGIX program.
I503	CVILOGIX	1- Tool has been locked by CVILOGIX. 2- Check the CVILOGIX program status. 3- Check an ePOD is plugged to the system.
I700	eWallet plugged	eWallet plugged
I701	eWallet unplugged	1- eWallet unplugged. 2- Try unplugging the key and insert it again. 3- If the problem occurs again, contact your Desoutter representative for support.
I702	RIM unplugged	RIM unplugged
I703	RIM unplugged	RIM unplugged
I888	System software updated	No procedure.
I889	Device software updated	No procedure.
I891	System started	No procedure.
I899	Downgrade not allowed	1- Software downgrade is not allowed for this version. 2- Check the software image version on your USB key. 3- If the problem occurs again, contact your Desoutter representative for support.

Number	Description	Procedure
I900	Software update failed	1- Software upgrade failed. 2- Do not remove the USB key and restart the system. 3- If the problem occurs again, contact your Desoutter representative for support.
I901	Software not found	1- The software upgrade failed: software image invalid. 2- Check your USB key: it must have only one image at the root directory.
I902	Software invalid	1- The software upgrade failed: software image invalid. 2- Remove and copy again your software image. 3- Try another USB key. 4- Contact your Desoutter representative for more information.
I903	Software updater missing	1- The software updater is not available or damaged. 2- Contact your Desoutter representative for more information.
I904	Backup disabled	1- The "Save parameters" utility is not available. 2- Contact your Desoutter representative for more information.
I905	USB key full	1- Your USB key is full, all data were not saved. 2- Delete your old backup files and try again.
I906	Save parameters failed	1- An error occurred during backup: data were not saved. 2- Check the available space on your key, delete files and try again. 3- If the problem occurs again, contact your Desoutter representative for support.
I907	Wrong USB port	1- Your USB device is plugged to the wrong port. 2- If your device is a USB key, plug it to the USB front port. 3- If your device is a USB barcode reader or keyboard, plug it to the bottom USB ports.
I908	Too HID device	1- Too many USB devices (barcode reader or keyboard) are plugged to the system. 2- Remove all devices and plug them again to the bottom USB ports only.
I909	HID device error	1- Your USB device is not supported by the system. 2- Only USB barcode reader and USB keyboard are supported. 3- If the problem occurs again, contact your Desoutter representative for support.
I910	Save program error	1- Plug an USB key to the front panel. 2- Check available space on your USB key, delete some old backup and try again.
I911	Load program error	1- Plug an USB key to the front panel. 2- The .zip file was not found: check that it is in the correct directory.
I912	Backup failed	1- Check the ePOD connection. 2- Contact your Desoutter representative for support.
I913	Restore failed	1- Check the ePOD connection. 2- Contact your Desoutter representative for support.
I914	Maintenance ongoing.	Maintenance ongoing.
I917	Accessory configuration error	1- The accessory configuration is not correct. 2- Check type of elements and events associated.
I920	System reset	ePOD automatic backup must be configured again.

Number	Description	Procedure
I921	Pset execution not authorized	1- Check used features allowance. 2- Contact your Desoutter representative for support.
I923	Additional transducer offset failure	1- Offset value from additional torque sensor is outside bounds. 2- Restart the tool with no mechanical constraints. 3- If the problem occurs again, contact your Desoutter representative for support.
I924	Tool calibration required	1- Perform a calibration of the tool.
W041	Unauthorized tool	1- The tool connected to the system is not authorized. 2- Maximum number of battery tools reached or tightening unit associated does not exist anymore. 3- Check the ePOD/RIM connection and capacity.
W201	Replace RTC battery.	1- The "Real Time Clock" backup battery needs to be replaced.
W214	Short circuit	1- Serial peripheral default. 2- Disconnect and reconnect. 3- Check the serial peripheral.
W219	Trig. safety failure	1- Drive hardware failure. 2- Safety issue. 3- Contact your Desoutter representative for support.
W220	Hardware trip	1- Drive hardware failure. 2- Safety issue. 3- Contact your Desoutter representative for support.
W229	Drive PWM error	1- Software failure. 2- Restart the system. 3- If the problem occurs again, contact your Desoutter representative for support.
W246	Synchro I/O problem	1- Error detected on synchronisation input. 2- Check the configuration of I/O. 3- Check the synchronisation cable.
W250	Pset corrupted	1- Pset is not defined correctly. 2- Check the Pset.
W253	Incorrect tool Id	1- Pset is not defined correctly. 2- One tool declared in the Pset is not part of the tightening unit. 3- Check the Pset.
W257	Remote start error	1- Verify the tool trigger is correctly pushed.
W258	Calibration need Pset mode	1- For tool calibration, the tightening unit has to be in "Pset" mode. 2- Change the tightening unit mode into "Pset" mode.
W276	Database error	1- It was not possible to access the database. 2- Try to clear the database. 3- If problem persists, contact your Desoutter representative for support.
W726	Desoutter Protocol: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
W727	Desoutter MIDs not autorized	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "Feature management" menu.
W735	Ford Protocol: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.

Number	Description	Procedure
W736	Ford Protocol not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "Feature management" menu.
W741	CVILOGIX: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
W742	CVILOGIX not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "Feature management" menu.
W743	Up to 50 Pset: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
W744	Up to 250 Pset: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
W745	Up to 50 AP: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
W746	Up to 250 AP: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
W501	CVILOGIX user info	Message generated by CVILOGIX program.
W600	System disconnected	1- The system is disconnected. 2- Check the network cable.
W601	Result not OK	Result not OK.
W925	RIM update in progress	1-Wait until the RIM update is finished.
W926	Inconsistencies RIM information	1- Perform a firmware upgrade to fix the information in the RIM.
E006	Rotor locked	1- Replace the tool. 2- The damaged tool needs maintenance.
E013	Bad tool ground	1- Phase-phase or phase to ground short-circuit. 2- Disconnect the tool. Contact your Desoutter representative for support.
E014	Torque power default	1- The torque sensor is not correctly supplied. 2- The tool needs maintenance. If the problem occurs again, contact your Desoutter representative for support.
E019	Tool communication error	1- Tool communication error. 2- Check tool and cable connections. If the problem occurs again, contact your Desoutter representative for support.
E020	Tool LED error	1- Tool LEDs are not correctly supplied. 2- Disconnect and reconnect the tool. If the problem occurs again, contact your Desoutter representative for support.
E023	Unsupported tool	1- The tool connected to the system is not supported. 2- Contact your Desoutter representative for support.
E200	Quick stop !	1- The quick stop has been activated. 2- Check the Phoenix connector.

Number	Description	Procedure
E213	Drive connection lost	1- Connection with the drive has been lost. 2- Reboot the system. 3- If the issue remains, contact your Desoutter representative for support.
E217	Drive disabled	1- Drive disabled by external source. 2- Contact your Desoutter representative for support.
E218	Drive power failure	1- Drive hardware failure. 2- Safety issue. Contact your Desoutter representative for support.
E221	Drive check error	1- Drive hardware failure. 2- Safety issue. Contact your Desoutter representative for support.
E222	System too hot	1- Heatsink too warm. 2- Let the system cool down.
E230	DC bus high	1- Maximum current exceeded. DC-bus voltage high. 2- Contact your Desoutter representative for support.
E231	DC bus too low	1- Power failure. DC-bus voltage low. 2- Contact your Desoutter representative for support.
E232	Error ID Fieldbus	1- The Fieldbus module plugged to the system is not an authorized Desoutter module. 2- Contact your Desoutter representative for more information.
E233	CVINET FIFO full	1- CVINET FIFO is full, the connection has been lost. 2- Check the Ethernet cable. 3- Check the Ethernet configuration. 4- Check that CVINET is running correctly.
E236	ToolsNet FIFO full	1- ToolsNet FIFO is full, the connection has been lost. 2- Check the Ethernet cable. 3- Check the Ethernet configuration. 4- Check that ToolsNet is running correctly.
E240	XML not authorized	1- The selected XML protocol is not authorized. 2- Check the ePOD characteristics.
E243	PFCS not authorized	1- The selected PFCS protocol is not authorized. 2- Check the ePOD characteristics.
E247	XML version conflict	1- Conflict detected in Audi / VW XML protocol version. 2- Check the coherence of the version between the system and master PC/PLC.
E248	SAS order failed	1- Fieldbus SAS order has failed. 2- Check the value of RRGI, SIO, etc.
E249	XML PRG 0	1- The PRG value 0 has been set by Fieldbus.
E255	Drive choke too hot	1- Power electronics too warm. 2- Let the system cool down.
E256	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.
E260	IPM not authorized	1- The selected IPM protocol is not authorized. 2- Check the ePOD characteristics.
E265	Socket(s) usable with more than one tightening unit	1- Reconfigure sockets combination to resolve conflicts.
E268	CVINET incompatible	1- Update CVINET WEB software.

Number	Description	Procedure
E277	Half DC bus voltage out of range	1- Half DC-bus voltage is out of range. 2- Switch off the system. Wait at least 30 seconds. Switch on the system and try again. 3- If the problem occurs again, change the drive and try again. 4- Contact your Desoutter representative for support.
E278	Pre-loaded BUS capacitors failure	1- Bus capacitors are not correctly pre-loaded. 2- Switch off the system. Wait at least 30 seconds. Switch on the system. 3- If the problem occurs again, change the drive and try again. 4- Contact your Desoutter representative for support.
E280	Result not stored	1- It was not possible to persist the tightening result on ePOD. 2- Switch off the system. Wait at least 30 seconds. Switch on the system. 3- Contact your Desoutter representative for support.
E502	CVILOGIX user info	Message generated by CVILOGIX program.
E704	Missing UV	1- The UV amount of the configuration is greater than the number of UVs available in the RIM. 2- Allocate UVs to this RIM. 3- Contact your Desoutter representative for more information.
E705	Missing demo UV	1- The demo UV amount of the configuration is greater than the number of demo UVs available in the RIM. 2- Allocate demo UVs to this RIM. 3- Contact your Desoutter representative for more information.
E706	Missing UV/demo UV	1- The demo UV amount of the configuration is greater than the number of demo UVs available in the RIM. 2- Allocate demo UVs to this RIM. 3- Contact your Desoutter representative for more information.
E711	Tightening Unit: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E712	Tightening Unit not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E717	Up to 50 Pset: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E718	Up to 250 Pset: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E719	Up to 50 AP: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E720	Up to 250 AP: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.

Number	Description	Procedure
E721	Up to 50 Pset: not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E722	Up to 250 Pset: not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E723	Up to 50 AP: not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E724	Up to 250 AP: not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E729	PFCS: demo expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E730	PFCS not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E732	VWXML: demo expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E733	VWXML not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E738	IPM: demo expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E739	IPM not active	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E890	Device Software Error	-
E915	Inconsistent version	1- Firmware version of all systems must be identical. 2- Update the systems firmware.
E916	Workgroup not authorized	1- Connect an ePOD3 to the primary system.
E918	Emergency stop !	1- The emergency stop has been activated. 2- Check the M8 connector.
E919	Additional transducer error	1- The additional transducer maximum torque is lower than the embedded transducer maximum torque. 2- The Pset uses an additional transducer not installed on the tool.
E927	Corrupted RIM information	1- It is not possible to use this RIM. 2- Contact your Desoutter representative for support.
E928	Tracking System communication failed	1- Tracking System communication failed.
E935	1 Working Space: demo expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.
E936	1 Working Space: not authorized	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.
E941	E-Lit WI-FI: demo mode expired	1 - The demo period for this feature was 90 days. 2 - This demo period is now elapsed. 3 - To continue to use it you need to activate it with UV.

Number	Description	Procedure
E942	E-Lit WI-FI: not authorized	1 - This feature is configured but not active. 2 - To activate it with UV, go to the "feature management" menu.

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.

Number	Description	Procedure
I270	Time settings	1-Invalid Time setting|2-Check Pset settings with correct time value settings
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 temperature out of range	1- Tool is locked because the maximum or minimum 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.

Number	Description	Procedure
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.
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.

The company designs, develops and delivers innovative quality industrial tool solutions, including Air and Electric Screwdrivers, Advanced Assembly Tools, Advanced Drilling Units, Air Motors and Torque Measurement Systems.

Find more on www.desouttertools.com

Desoutter

More Than Productivity