

# CONNECT Industrial Smart Hub

## Product Instructions

**Model**

CONNECT-X

CONNECT-W

**Part number**

6159327220

6159327230



Download the latest version of this document at  
[http://www.desouttertools.com/info/6159924300\\_EN](http://www.desouttertools.com/info/6159924300_EN)

**⚠ WARNING****Read all safety warnings and instructions**

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

**Save all warnings and instructions for future reference**

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## Product Information

### General Information

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

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

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

### Warranty

- Product warranty will expire 12 months after the product is first taken into use, but will in any case expire at the latest 13 months after delivery.
- Normal wear and tear on parts is not included within the warranty.
  - Normal wear and tear is that which requires a part change or other adjustment/overhaul during standard tools maintenance typical for that period (expressed in time, operation hours or otherwise).
- The product warranty relies on the correct use, maintenance, and repair of the tool and its component parts.
- Damage to parts that occurs as a result of inadequate maintenance or performed by parties other than Desoutter or their Certified Service Partners during the warranty period is not covered by the warranty.
- To avoid damage or destruction of tool parts, service the tool according to the recommended maintenance schedules and follow the correct instructions.
- Warranty repairs are only performed in Desoutter workshops or by Certified Service Partners.

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

#### **For electrical motors:**

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

### Website

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

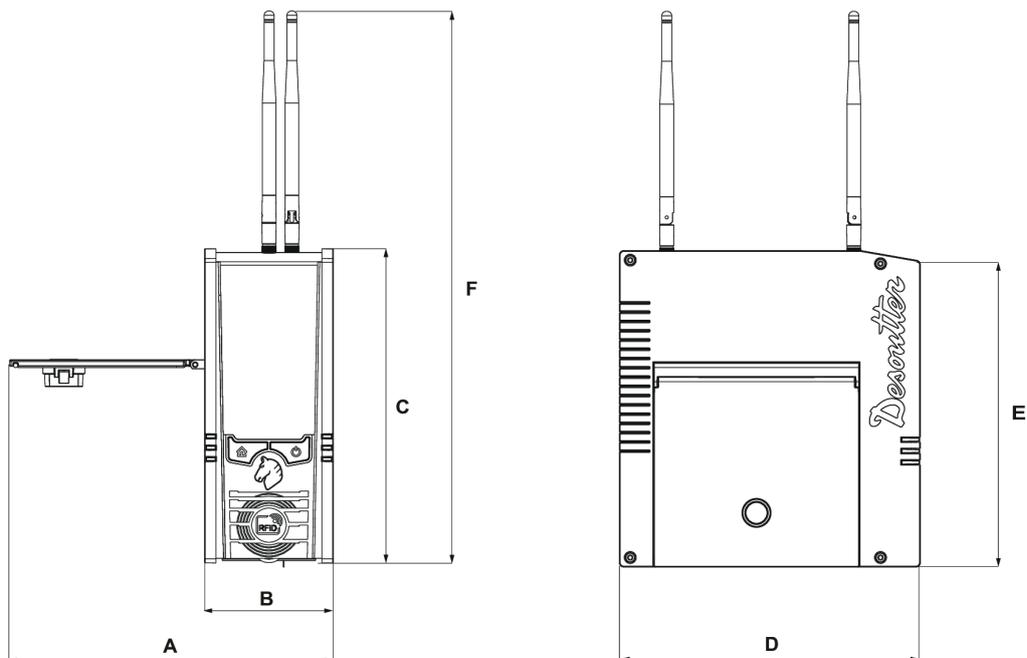
Please visit: [www.desouttertools.com](http://www.desouttertools.com).

### Information about spare parts

Exploded views and spare parts lists are available in Service Link at [www.desouttertools.com](http://www.desouttertools.com).

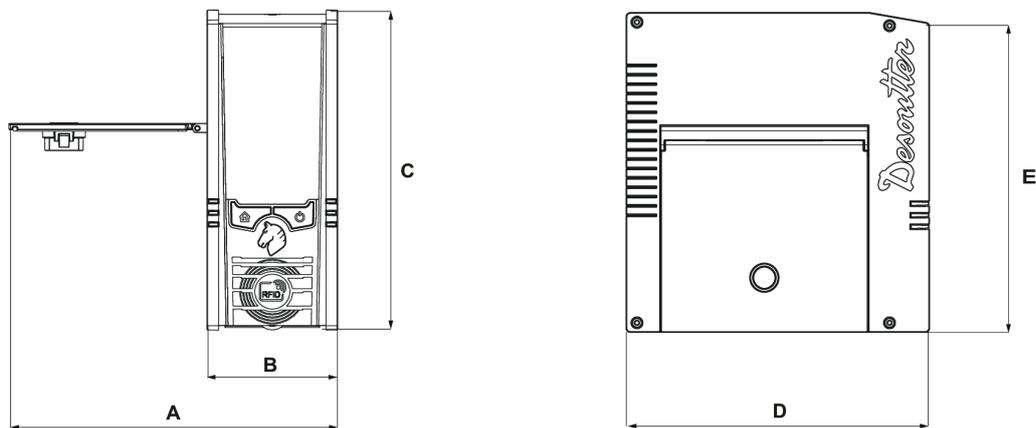
### Dimensioning

CONNECT-W



	mm	in.
A	227	8.94
B	90	3.54
C	222	8.74
D	210	8.28
E	215	8.46
F	390	15.35

**CONNECT-X**



	mm	in.
A	227	8.94
B	90	3.54
C	222	8.74
D	210	8.28
E	215	8.46

**CAD files**

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

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

## Overview

### General overview

CONNECT is the Desoutter premium platform for tightening solutions.

- CONNECT-W has an embedded WI-FI access point and allows to manage up to 10 cordless tools with internal access point and 20 with an external access point.
- CONNECT-X communicates with an external WI-FI access point and allows to manage up to 20 cordless tools.

### Tightening units

Tightening units are managing the tools.

One tool is connected to one tightening unit.

There are 3 types of tightening units:

Icon	Type	Description	Associated tools
	Premium	This tightening unit manages cordless tool with full traceability.	EABS EABC EPBC BLRTC
	Essential	This tightening unit manages cordless tool with OK/NOK traceability.	EABS EABC EPBC BLRTC
	E-LIT Wi-Fi	This tightening unit manages cordless tool with OK/NOK traceability.	ELC-A-W ELC-P-W

Each tightening unit has to be activated by UV (Unit Values) which have been already defined during the configuration step and which are supplied in an eWallet.

### Tightening units, features and UVs

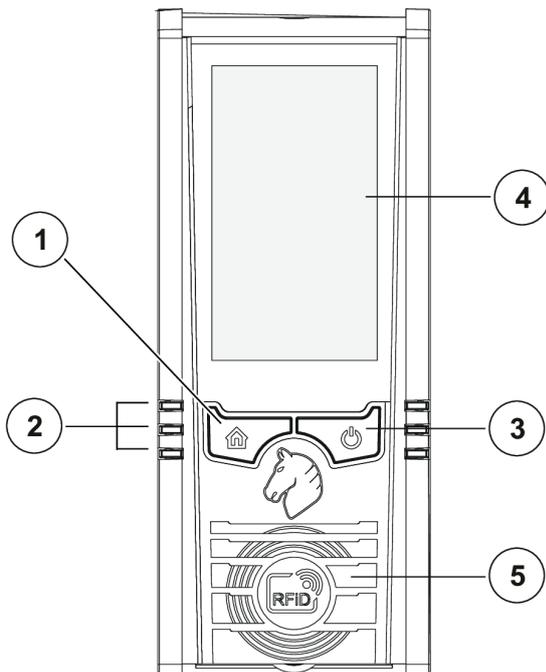
Tightening unit type and features	Premium	Essential	E-lit Wi-Fi
Number of Psets	10	6	4
Number of Assembly Processes	10	6	4 with 1 batch
Live result on CONNECT, CVIMONITOR and Sight	OK/NOK Monitorings Values Curves	OK/NOK Monitorings Values Curves	OK/NOK Monitorings
Traceability	OK/NOK Monitorings Values Curves	OK/NOK Monitorings	OK/NOK Monitorings

Features and UVs	Premium	Essential	Elit Wi-Fi
Tightening unit value	86 UVs	41 UVs	15 UVs
Up to 50 Psets	11 UVs	-	-
Up to 250 Psets	17 UVs	-	-
Up to 50 Assembly Processes	15 UVs	-	-
Up to 250 Assembly Processes	20 UVs	-	-
Desoutter protocol	5 UVs	-	-
Customized protocol	5 UVs	5 UVs	-
Virtual Cable (1 working space)	15 UVs	15 UVs	-
Virtual Cable (multiple working spaces)	25 UVs	25 UVs	-
CVILOGIX	9 UVs	9 UVs	9 UVs

## Product description

### Front panel



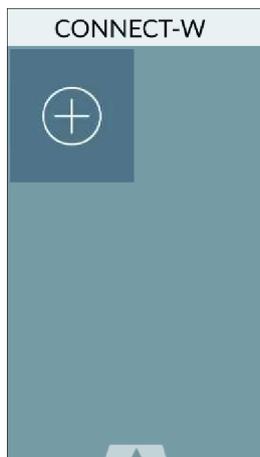

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1	Home button
2	LEDs Red Blue Green
3	Power management button
4	Touchscreen
5	RFID antenna

---

### Start screen

Upon initial powering on, the following screen is displayed.



CONNECT name is on the top.

Click the arrow at the bottom.

**Main buttons and icons**

Tap this icon to access the tightening results and curves.



Tap this icon to configure:

- System
- Tightening units
- Tools
- Psets
- Assembly Processes
- Feature management



Tap this icon to access the following actions.

- updating of the system firmware
- using of a CVI LOGIX program
- backup of configurations and results
- management of I/O events
- management of the system memory
- management of results, logs and user infos
- getting information on the tool
- pairing a tool via eDOCK or RFID
- displaying of the user info logs
- management of the RIM
- displaying the system firmware version



Tap this button on the front panel to display the start screen.



Tap this icon to validate.



Tap this icon to quit.

**Technical data****Power supply**

100-120 / 200-240 V~

50/60 Hz

Single-phase

CONNECT can alternatively be powered by 24 V DC provided by an external output.

**Power consumption**

For both models, CONNECT-W and CONNECT-X:

115 V - 240 V / I max	2,5 A
24 V / I max	4 A
Max. consumption	100 W
Standby consumption	15 W

**Weight**

Model	kg	lb
CONNECT-X	2.1	4.63
CONNECT-W	2.1	4.63

**Storage and use conditions**

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

**Wireless Communication specifications**

Dual Band – 5.x and 2.4 GHz, MIMO, IEEE802.11ac indoor transceiver.

Radio Configuration	3x3 MIMO, Dual Band
Center Frequency Range	<ul style="list-style-type: none"> <li>• 5.180 GHz ~ 5.825 GHz</li> <li>• 2.412 GHz ~ 2.484 GHz</li> </ul> This varies by the regulatory domain
Channel Bandwidth*	20, 40 and 80 MHz channels
Radio Modulation/Data Rates (Dynamic Link Adaptation)	<ul style="list-style-type: none"> <li>• 802.11ac: MCS0-9 (5.x GHz)</li> <li>• 802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps (5.x GHz)</li> <li>• 802.11n: MCS0-23 (5.x and 2.4 GHz)</li> <li>• 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps (2.4 GHz)</li> </ul>
802.11ac Wave 1 Capabilities	<ul style="list-style-type: none"> <li>• 802.11 dynamic frequency selection (DFS) as an AP and Client</li> <li>• Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx), Maximal ratio combining (MRC), Cyclic shift diversity (CSD), Frame aggregation, block ACK, 802.11e compatible bursting, Spatial multiplexing, cyclic-delay diversity (CDD), low-density parity check (LDPC), Space Time Block Code (STBC)</li> <li>• Phy data rates up to 1.3 Gbps (80 MHz channel)</li> </ul>
802.11n version 2.0 Capabilities	<ul style="list-style-type: none"> <li>• 802.11 dynamic frequency selection (DFS) as an AP and Client</li> <li>• Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx), Maximal ratio combining (MRC), Cyclic shift diversity (CSD), Frame aggregation, block ACK, 802.11e compatible bursting, Spatial multiplexing, cyclic-delay diversity (CDD), low-density parity check (LDPC), Space Time Block Code (STBC)</li> <li>• Phy data rates up to 450 Mbps (40 MHz channel)</li> </ul>

**Accessories****Included accessories**

RIM stands for Removable Integrated Memory and is inserted in the front panel.

It contains the configuration (tools parameters, tightening processes), the tightening results and curves and the UV assigned to the features of the tightening units.

It can be removed and inserted in another CONNECT at any time.

Wall mounting kit	6153993410
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**Required accessories**

Area	Length m	Length ft.	Part number
Europe	2.5	8.20	6159177390
USA	2.5	8.20	6159177410
UK	2.5	8.20	6159177400
China	2.5	8.20	6159177420

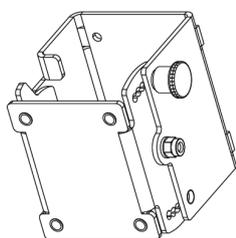
**Optional accessories**

The following accessory is used to prevent users from removing the RIM.



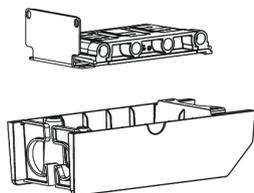
RIM cover protection	6152111240
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The following accessory allows to tilt the hub every 7.5° (min. -15°/max. +15°).



Advanced wall mounting	6153995650
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The following accessory is used to protect CONNECT from dust and splashed water.



IP54 kit	6153993360
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Use the following cable to power supply CONNECT with an external 24 V DC output.

Length m	Length ft.	Part number
5	16.40	6159177430

**Network and WI-FI settings****Default systems Ethernet configuration**

Item	Desoutter default parameter
IP address (Ethernet 1)	192.168.5.212
Subnet mask	255.255.255.0
Gateway	127.0.0.1

**Default Ethernet configuration - External Access Point**

Item	Desoutter default parameter	Other possible values
IP address	192.168.5.201	Refer to local settings
Subnet mask	255.255.255.0	Refer to local settings

**Wi-Fi settings**

Item	Desoutter default parameter	Other possible values
Network name (SSID)	Desoutter_1	String of 255 characters
Security type	WPA/WPA2 PSK	Open
Encryption type	AES/CCMP	none WEP64 WEP168 TKIP
Security key	mydesoutter_1	String of 255 characters
Regulatory domain	Worldwide	ETSI (Europe) FCC (America) TELECOM (Japan)
Radio band	2.4 GHz - Channel 1-11	5 GHz - U-NII-1 5 GHz - U-NII-2 5 GHz - U-NII-2 ext 5 GHz - U-NII-3
Data rate	54 Mbit	1 Mbit 2 Mbit 5.5 Mbit 6 Mbit 9 Mbit 11 Mbit 12 Mbit 18 Mbit 24 Mbit 36 Mbit 48 Mbit 13 Mbit (MCS1) 19.5 Mbit (MCS2) 26 Mbit (MCS3) 39 Mbit (MCS4) 52 Mbit (MCS5) 58.5 Mbit (MCS6) 65 Mbit (MCS7) 6.5 Mbit (MCS0)
Link adaptation	True	-
RSSI (Received Strength Signal Indication) on tool	-	> -65 dBm as a minimum

**Regulatory domain**

A WLAN regulatory domain can be defined as a bounded area that is controlled by a set of laws or policies. Many countries follow standards set by FCC, ETSI, TELECOM or worldwide.

**2.4 GHz authorized channel list per regulatory domain**

Channel	FCC America	ETSI Europe	TELECOM Japan	Worldwide
1	x	x	x	x
2	x	x	x	x
3	x	x	x	x
4	x	x	x	x
5	x	x	x	x
6	x	x	x	x

Channel	FCC America	ETSI Europe	TELEC Japan	Worldwide
7	x	x	x	x
8	x	x	x	x
9	x	x	x	x
10	x	x	x	x
11	x	x	x	x
12	N/A	x	x	N/A
13	N/A	x	x	N/A

#### 5 GHz authorized channel list per regulatory domain

Channel	Radio band	FCC North America	ETSI Europe	TELEC Japan	Worldwide
36	U-NII-1	x	x	x	x
40		x	x	x	x
44		x	x	x	x
48		x	x	x	x
52	U-NII-2	x	x	x	x
56		x	x	x	x
60		x	x	x	x
64		x	x	x	x
100	U-NII-2 Ext	x	x	x	x
104		x	x	x	x
108		x	x	x	x
112		x	x	x	x
116		x	x	x	x
120		N/A	x	x	N/A
124		N/A	x	x	N/A
128		N/A	x	x	N/A
132		x	x	x	x
136		x	x	x	x
140		x	x	x	x
149	U-NII-3	x	x	N/A	N/A
153		x	x	N/A	N/A
157		x	x	N/A	N/A
161		x	x	N/A	N/A
165		x	x	N/A	N/A

## Installation

### Installation Requirements

#### Checking the line voltage

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

Line voltage (V)	100-120 / 200-240 V~
------------------	----------------------

The symbol ~ means "alternating current".

#### Required distances for installation

The maximum distance advised between CONNECT or the external WI-FI access point and the farthest tool is 30 meters (98.42 ft) without obstacles such as metallic objects.

#### Minimum compatible versions

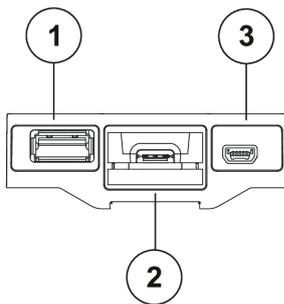
Software	Version
CVI CONFIG	V 2.3.7.x
CVIMONITOR	V 1.8.0.x

Tools	Version
EABC	C5.6.x
EPBC	C5.6.x
BLRTC	C5.6.x
EABS	C5.9.x
ELC-W	4.0.1.x

### Installation Instructions

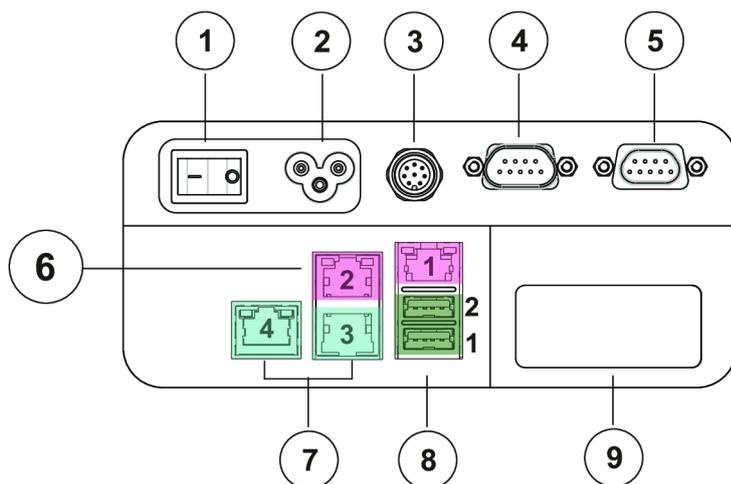
#### How to install the hub

##### Bottom panel



1	USB port
2	RIM slot
3	Mini USB

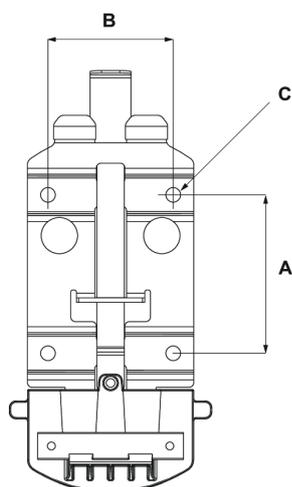
**Inside panel**



1	ON/OFF switch
2	Plug for power cord
3	24 V DC connector
4	RS232 port
5	eBUS port
6	Ethernet ports 1 and 2
7	Ethernet ports 3 and 4 Port 4 is a PoE Ethernet port. "PoE" stands for "Power over Ethernet"
8	2 USB ports
9	Fieldbus module slot

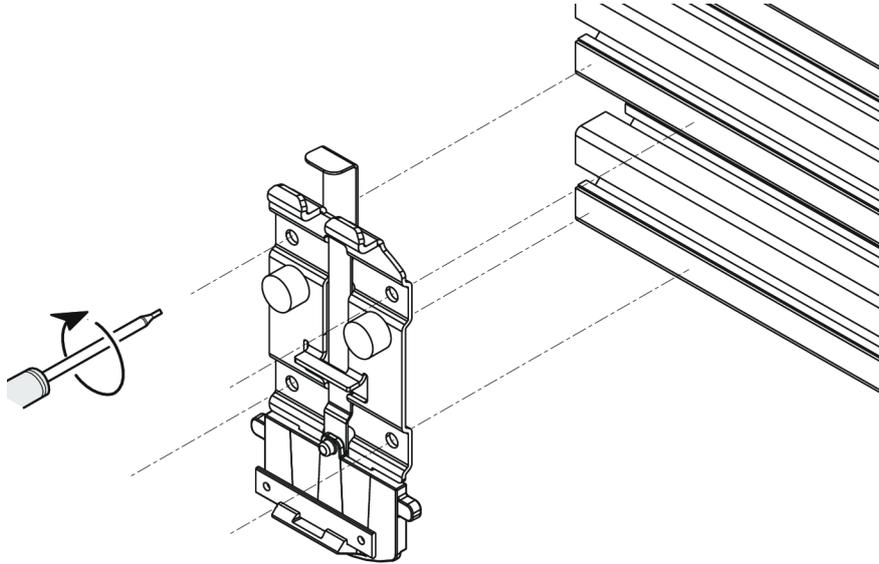
**Installing the wall mounting kit**

Use the following drilling template to properly install the wall-mounting kit.

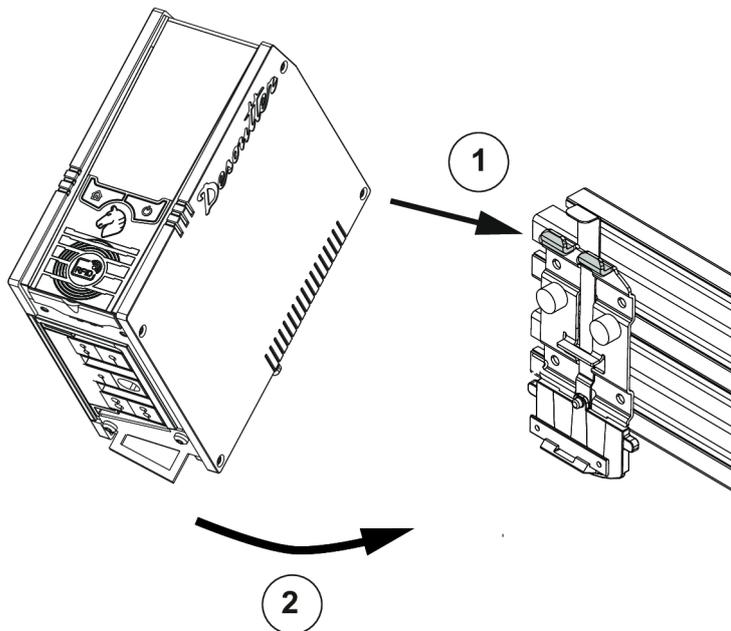


	mm	in.
A	70	2.76
B	55	1.16
C	6.5	0.26

Mount the wall-mounting kit on the rail or wall.



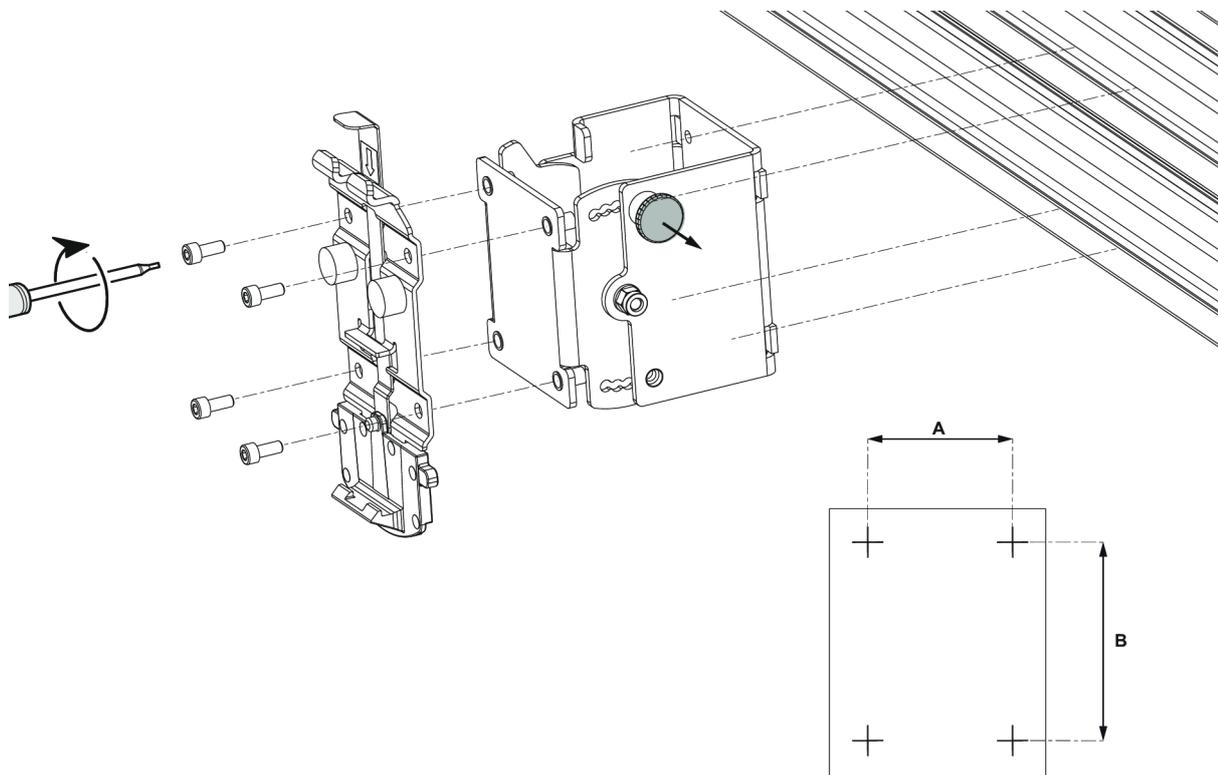
Place CONNECT on the kit as follows.



1. Position CONNECT against the wall-mounting kit so that the rear slots fit into the lifting lugs of the kit.
2. Let CONNECT drop. It will be locked into place with a distinct click.

### ***Installing the advanced wall mounting***

Mount the accessory on a DIN rail or wall.

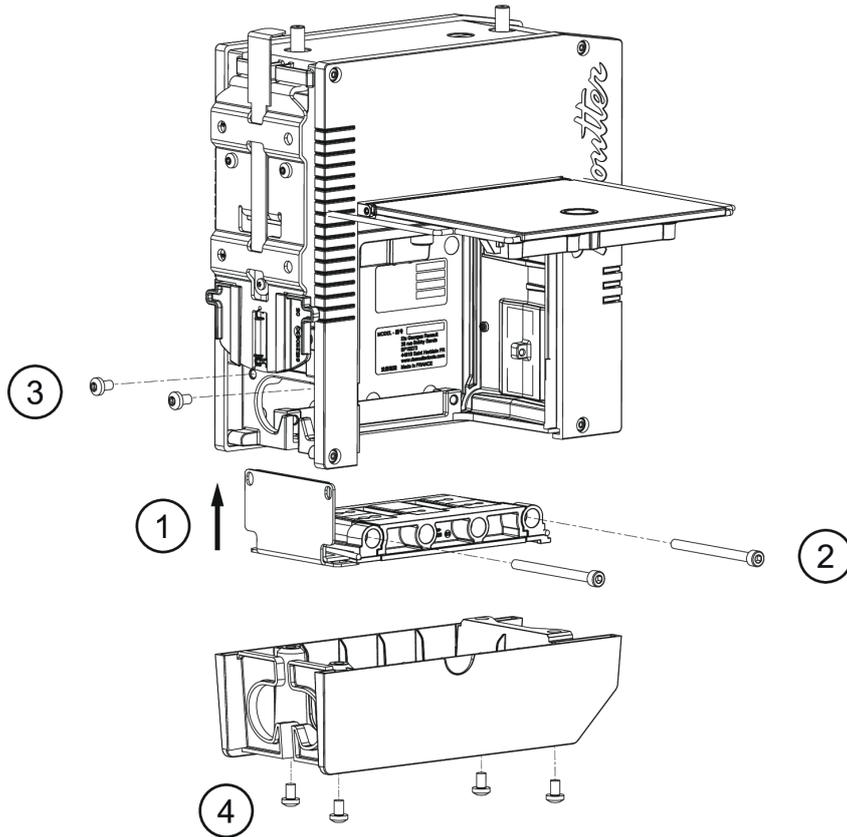


	mm	in.
A	55	2.17
B	70	2.76

**i** Pull the knob out to tilt the accessory (-15°/+15°) to tighten the screws more easily.

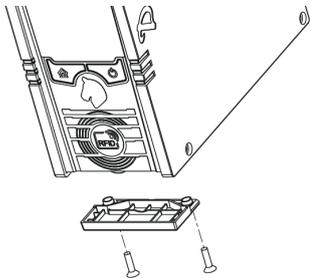
Place CONNECT on the wall mounting kit as shown previously.

### Installing the IP54 kit

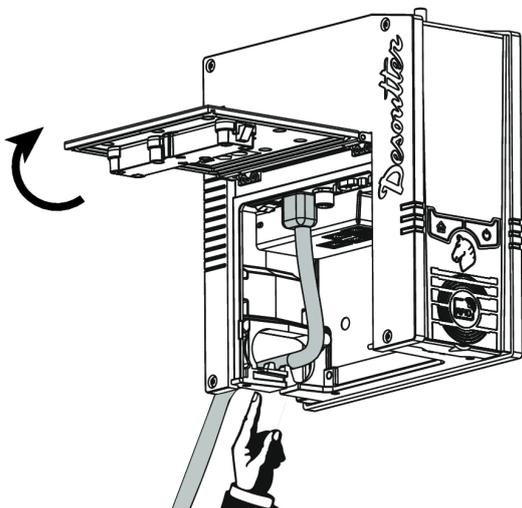


**i** The RIM cover protection has to be installed over the IP54 kit.

### Installing the RIM cover protection



### Routing the cables

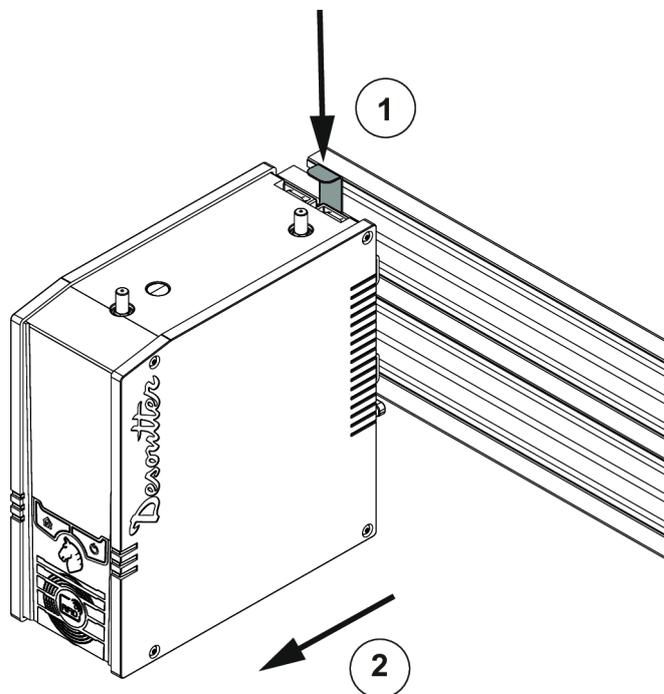


1. Open the side door by pressing the button located on the door.
2. Push the door against CONNECT. It will remain in place thanks to the magnet.
3. Plug the cables and pass them through the grommet.

### Removing **CONNECT** from the wall mounting kit

1. Power OFF the switch of the inside pane.
2. Unplug the cables.

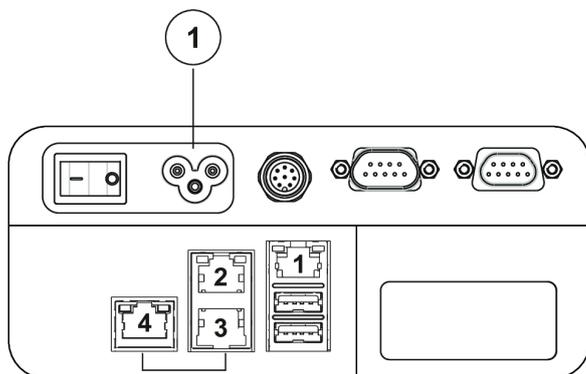
To remove **CONNECT** from the kit, follow the instructions below.



1. Push down the locking tab to unlock **CONNECT**.
2. Lift **CONNECT** and remove it.

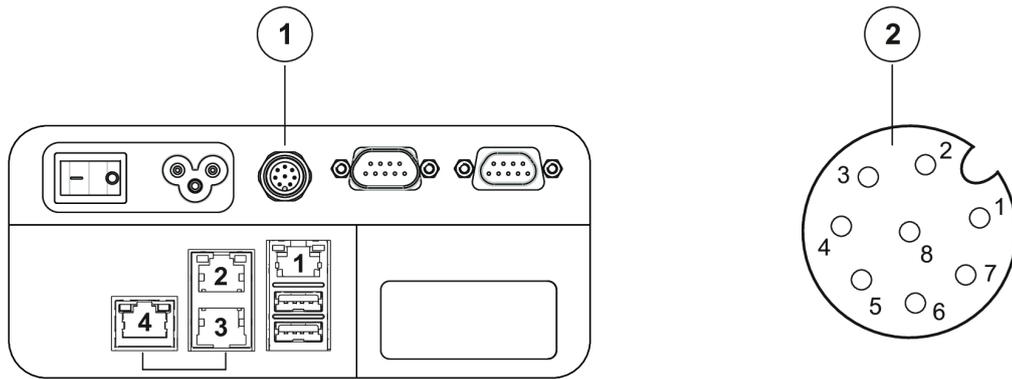
### Connecting to AC input power supply

**i** Use only one of the power cords given in chapter *Required accessories*.



Plug the power cord to (1) and to the mains.

### Connecting to 24 V DC input power supply



Plug the cable connector to (1).

Refer to the following pin layout (2) to connect the cable to an external 24 V DC input.

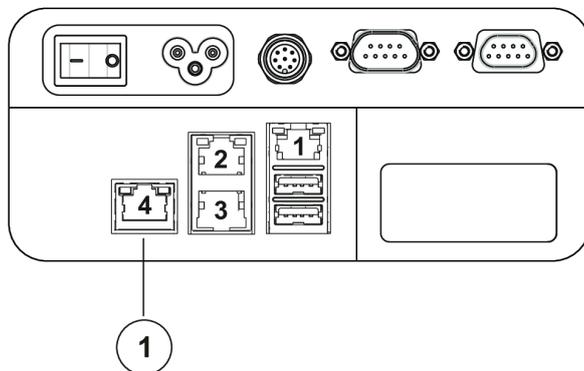
The maximum current for each pin is 1.5 A.

---

1	+ 24 V DC
2	+ 24 V DC
3	0 V
4	0 V
5	RS422 RX +
6	RS422 RX -
7	RS422 TX +
8	RS422 TX -

---

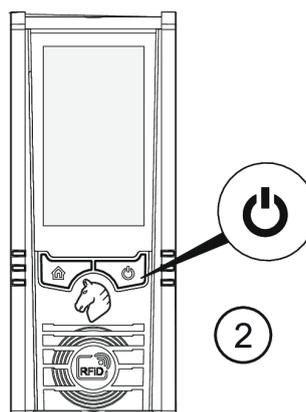
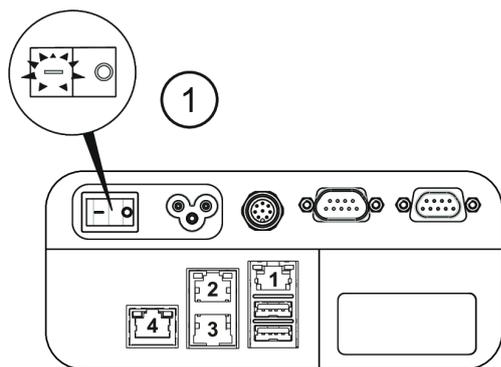
### Connecting to the PoE port (output power supply)



Plug the Ethernet cable to the PoE Ethernet port (1) of CONNECT and to the Ethernet port of a device.

The type of CONNECT PoE port is: 802.3at.

### Powering on CONNECT

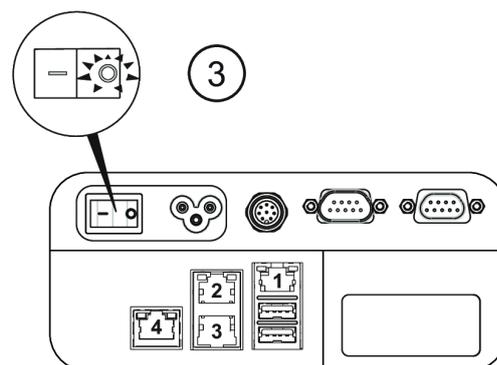
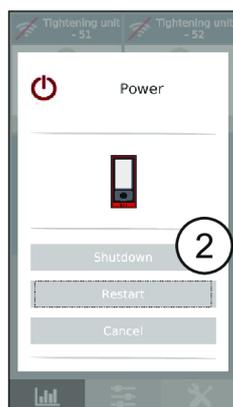
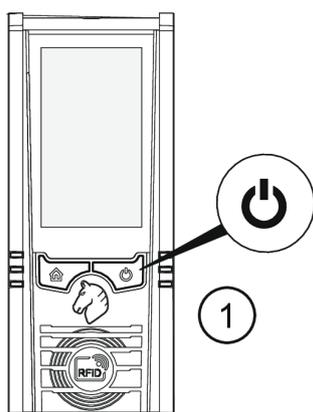


1. Open the side door.  
Push the ON/OFF switch to **I**. This will turn the system on.
2. Keep pressing the Power Management button on the front panel. LEDs are blinking and the Desoutter logo appears.  
The start screen is displayed and the green LEDs remain steady.

After 2 minutes (by default), the screen switches off. Tap the screen to wake it up.

- ⓘ Blue LEDs are blinking during the powering on of CONNECT-W. They will then remain steady to indicate that the embedded WI-FI access point is working properly.

### Powering off CONNECT



1. Keep pressing the Power Management button on the front panel.
2. Tap **Shutdown** to turn off CONNECT.
3. Open the side door.  
Push the ON/OFF switch to **O**. This will turn the system off.

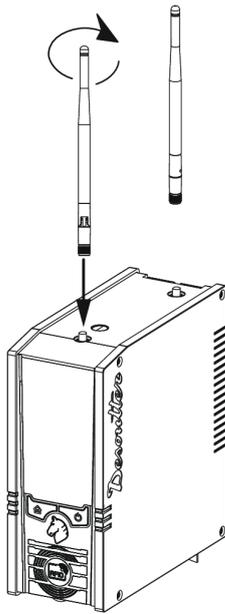
### How to link CONNECT to a computer

Plug an Ethernet cable to the computer and to any available Ethernet port of the inside panel

In the computer, go to **Network and Sharing Center** and change the IP address of the computer for a compatible **static IP address**. Change also the subnet mask if needed.

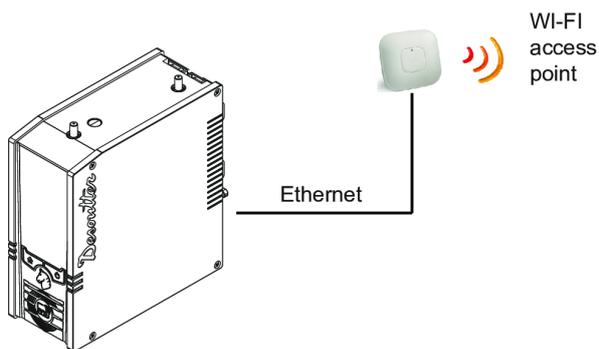
### Mounting the WI-FI antennas on CONNECT-W

- ⓘ Always remove the antennas before moving CONNECT-W.



Remove the caps and mount the antennas.

### **Plugging CONNECT-X to a WI-FI access point**



Plug an Ethernet cable into any available Ethernet port of the inside panel and connect it to the WI-FI access point.

## **How to set up networks**

### **Overview about networks**

Desoutter Ethernet 1 is typically the wired network dedicated to production lines.

Desoutter Ethernet 2 is typically the wired network dedicated to offices (company network).

	<b>IP address by default</b>	<b>Subnet mask by default</b>
System connected to Ethernet 1	192.168.5.212	255.255.255.0
System connected to Ethernet 2	192.168.6.212	255.255.255.0

### **How to select the network configuration**



Be sure that each IP address is unique and valid.

1. The network configuration depends on the model of CONNECT you have.  
 CONNECT-X: tools communicate with the WI-FI access point of the production line.  
 CONNECT-W: tools communicate with its embedded WI-FI access point.

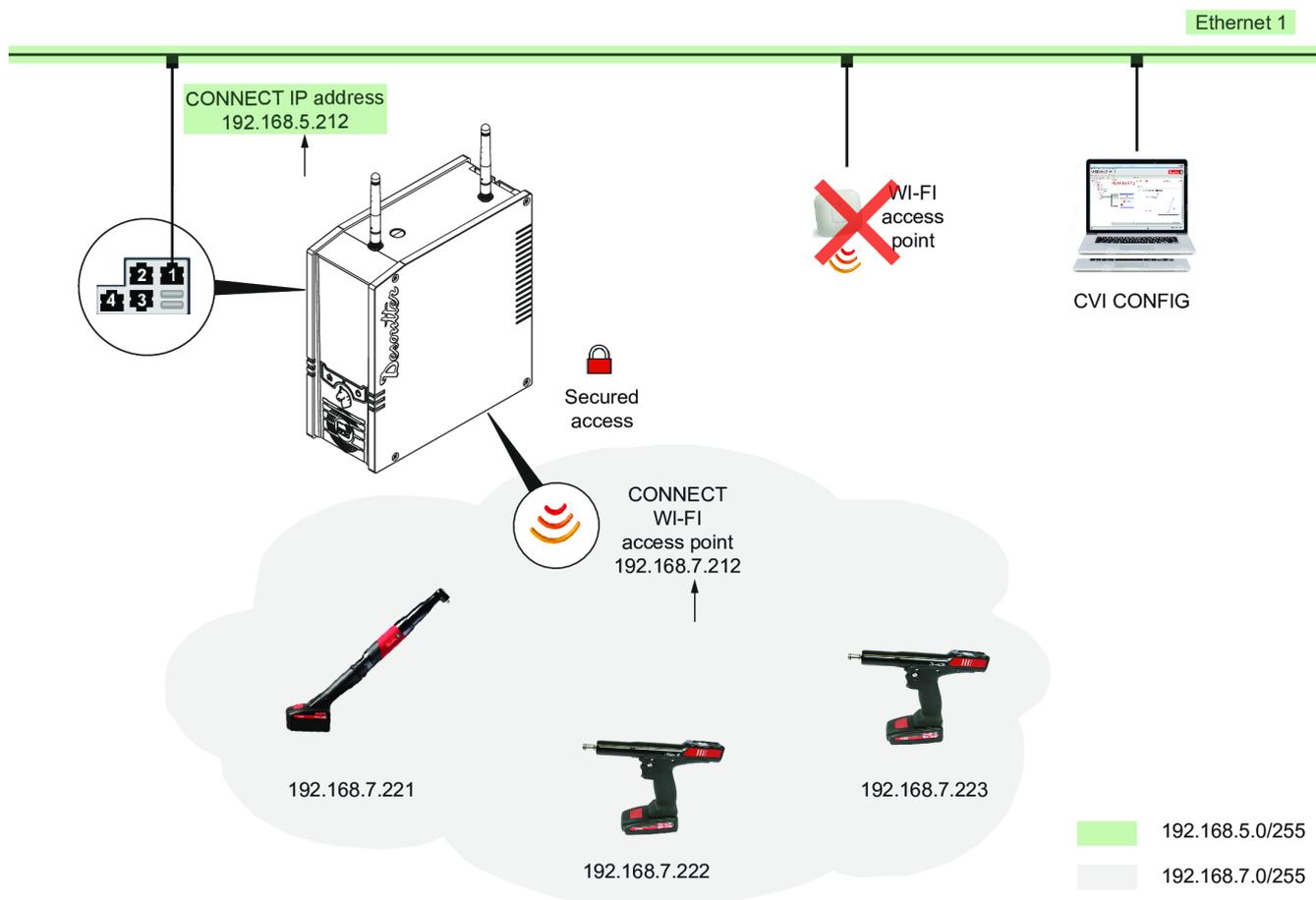
2. The network configuration depends on how you want to interface CONNECT.

CONNECT can be linked to:

- 1 network i.e. Ethernet 1 or 2
- 2 networks i.e. Ethernet 1 and 2

**i** It is possible to authorize a “bridge” between the dedicated WI-FI access point and Ethernet 1 or 2.

**CONNECT-W and 1 wired network**



Use any available Ethernet port of CONNECT to link it to Ethernet 1.

Go to CONNECT.



Go to the start screen and tap this icon.

Tap **System > Peripherals / Networks**.

Give a name to your network.

Type a valid IP address for CONNECT.



Tap this icon.

Give a SSID for CONNECT.

Type a valid IP address for the WI-FI access point of CONNECT.



Tap this icon.

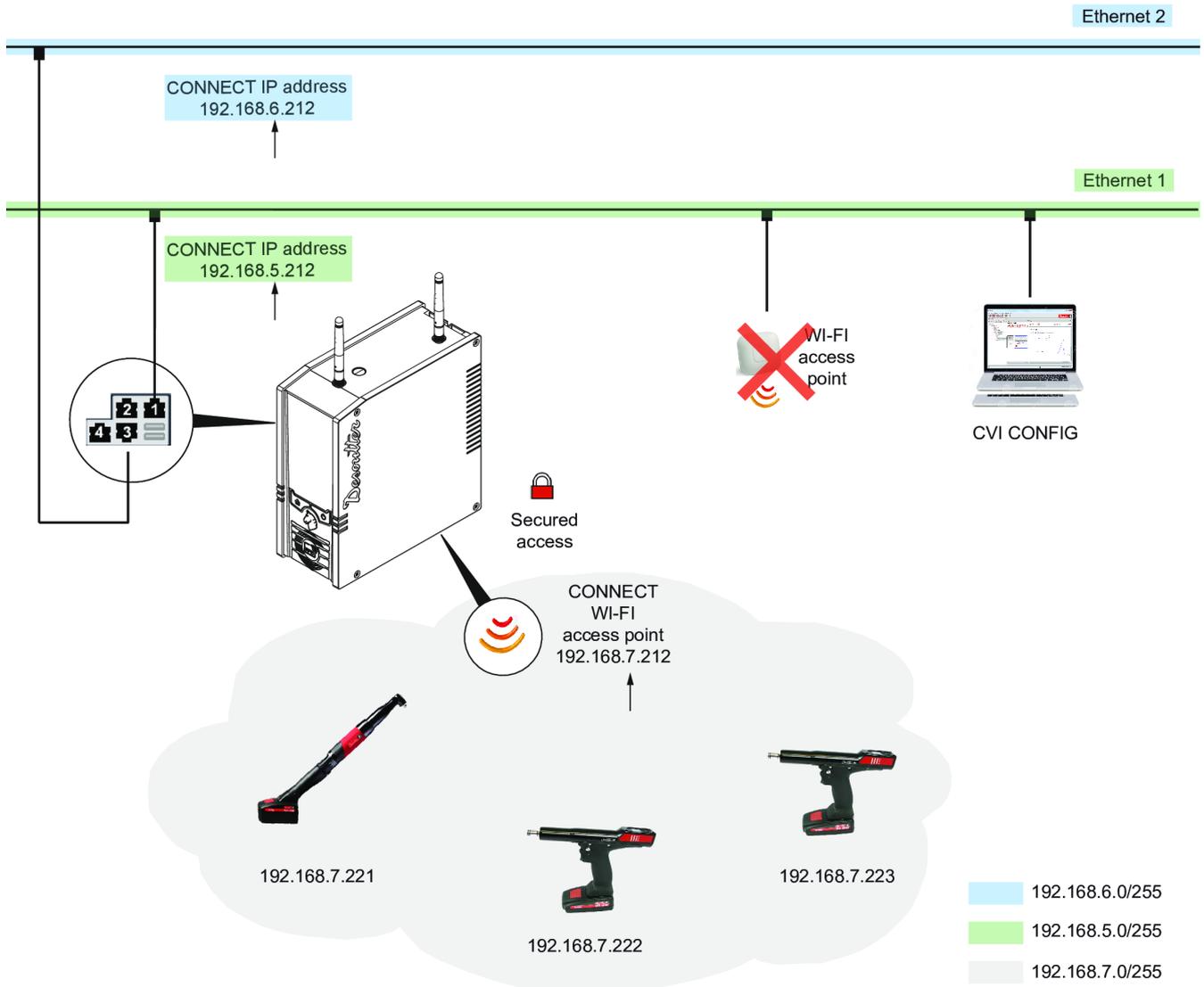
Fill in the wireless parameters.



Tap this icon to validate.

- i** Blue LEDs will be blinking during the change of configuration. They will then remain steady to indicate that the embedded WI-FI access point is working properly.

### CONNECT-W and 2 wired networks



Use Ethernet ports 1 **OR** 2 to link CONNECT to Ethernet 1.

Use Ethernet ports 3 **OR** 4 to link CONNECT to Ethernet 2.

Go to CONNECT.



Go to the start screen and tap this icon.

Tap **System > Peripherals / Networks**.



Tap this icon.

Give a name to each network.

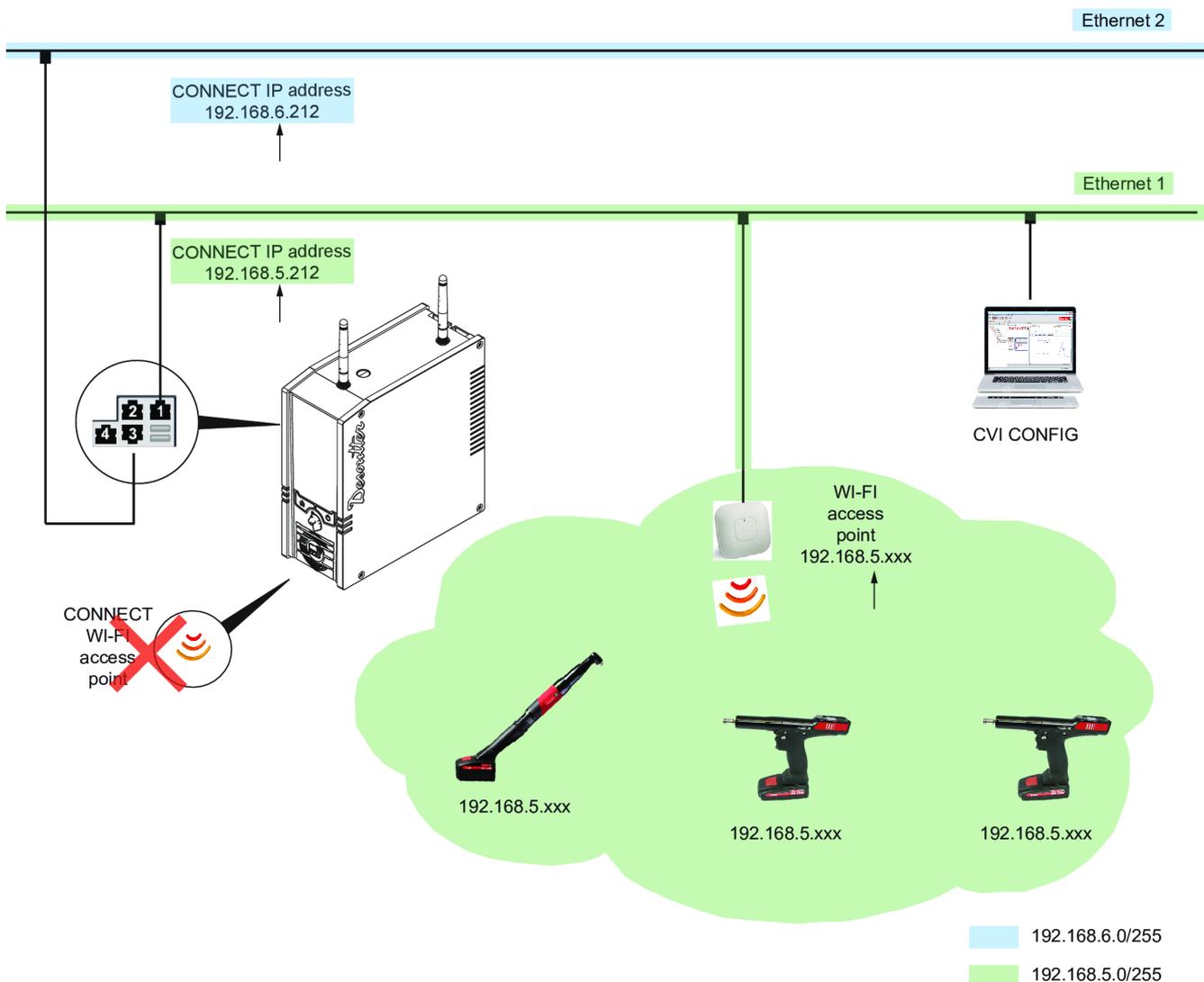
Type a valid IP address for each network and for each CONNECT.



Tap this icon to validate.

**i** Blue LEDs will be blinking during the change of configuration. They will then remain steady to indicate that the embedded WI-FI access point is working properly.

**CONNECT-X or CONNECT-W with WI-FI access point unticked**



Use Ethernet ports 1 **OR** 2 to link CONNECT to Ethernet 1.  
 Use Ethernet ports 3 **OR** 4 to link CONNECT to Ethernet 2.  
 Go to CONNECT.



Go to the start screen and tap this icon.

Tap **System > Peripherals / Networks**.



Tap this icon.

Give a name to each network.  
 Type a valid IP address for each network and for each CONNECT.



For CONNECT-W, tap this icon to display the screens for the WI-FI access point..

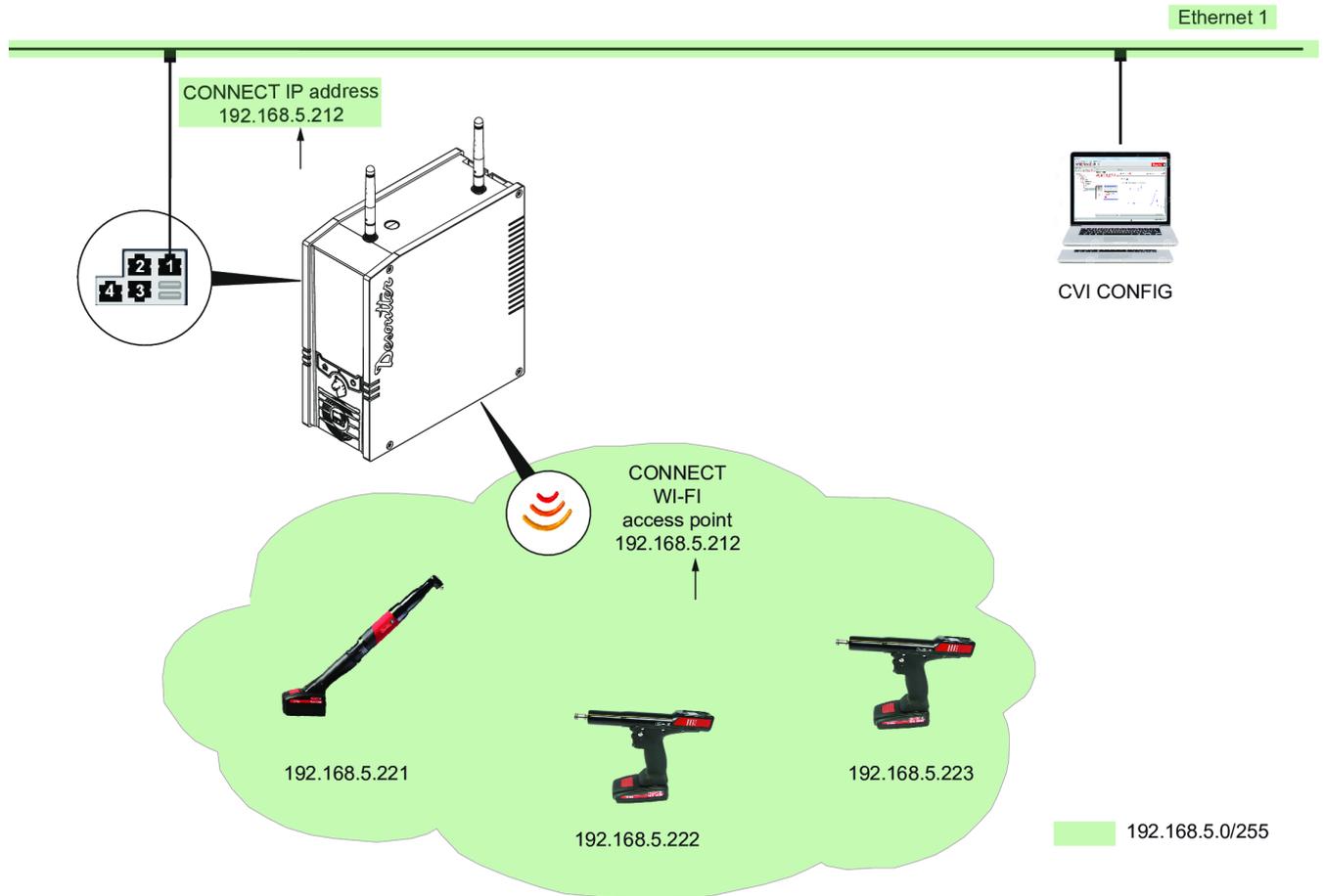
Untick **WI-FI access point activated**.



Tap this icon to validate.

**i** Blue LEDs are off.

### CONNECT-W / Embedded wireless network linked to Ethernet 1/2



Use any available Ethernet port of CONNECT to link it to Ethernet 1.  
Go to CONNECT.



Go to the start screen and tap this icon.

Tap **System > Peripherals / Networks**.

Give a name to your network.

Type a valid IP address for each CONNECT.



Tap this icon.

Go to the box **Linked to** and select Ethernet 1.  
Enter the parameters of the embedded access point in page 1 and 2.



Tap this icon to validate.

**i** Blue LEDs will be blinking during the change of configuration. They will then remain steady to indicate that the embedded WI-FI access point is working properly.

### How to ping an IP address

This function is used to check the network connection with any device connected to the network.



Go to the start screen and tap this icon.

Tap **System** > **Ping**.

Tap the box to enter the IP address.



Tap this icon to start.

### How to ping an IP address with CVIMONITOR

This function is used to check the network connection with any device connected on the network.

Launch CVI MONITOR software from the launchbar on your computer desktop.

Type the IP of the relevant system and click "Select".



Click this icon to display the screen.

Select **Ping**.

Type the IP address.

A green tick indicates that the ping is successful.

### Installing a Fieldbus module

**i** Be aware that errors of manipulation can cause connection problems or a deterioration of electrical contacts.

We strongly recommend that a technician from Desoutter installs the modules.

Contact your Desoutter representative for support.

1. Power off the system.
2. Locate the Fieldbus connector on the bottom panel of the system. The connector is protected by a grey cover.
3. Remove the cover.
4. Carefully drive the Fieldbus module into its location.
5. Tighten the 2 screws by using a T9 Torx screwdriver.
6. Power on the system.

**i** When the Fieldbus module is not present into its location, the cover must remain in place.

Refer to the user manual (printed matter: 6159931440) delivered in the packaging box or available at <https://www.desouttertools.com/resource-centre>.

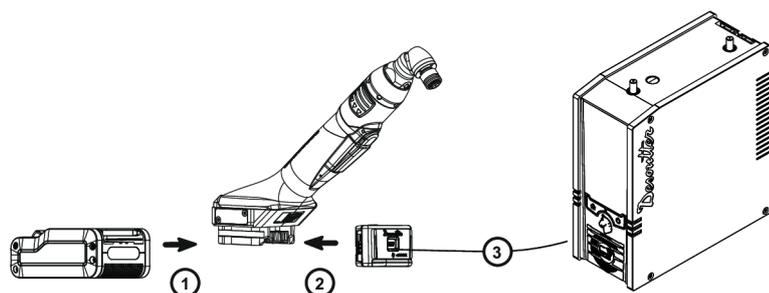
### Pairing tools via eDOCK

Plug a battery pack to the tool.

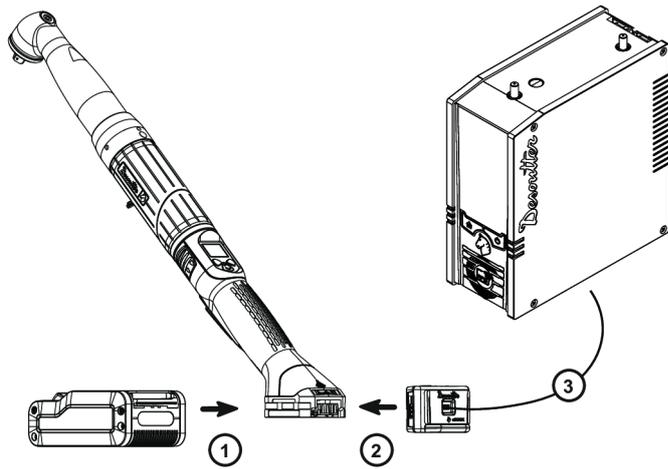
Connect eDOCK to the tool and to the USB port of CONNECT.

**i** Respect the connection order.

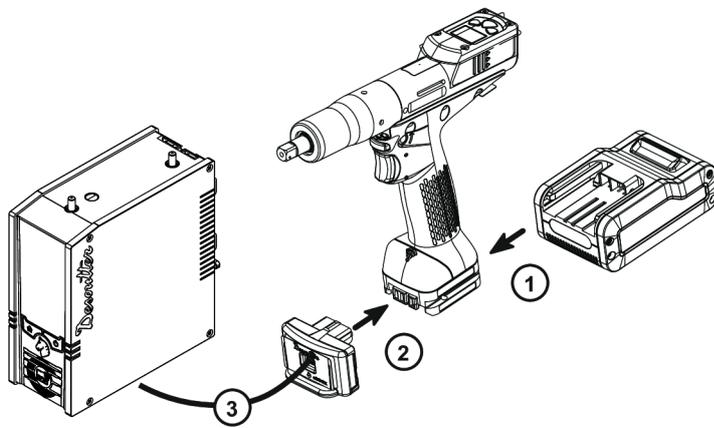
### EABS



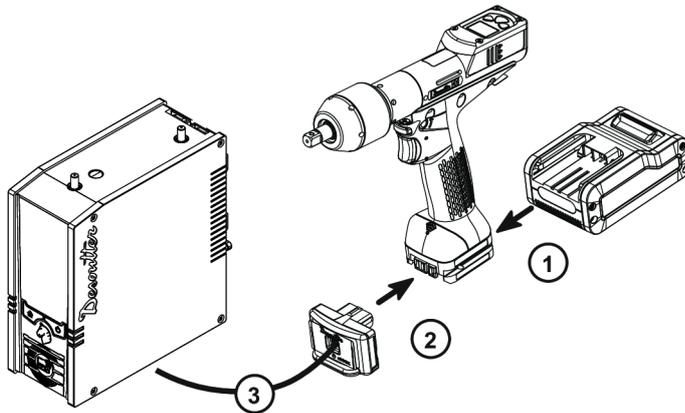
## EABC



## EPBC

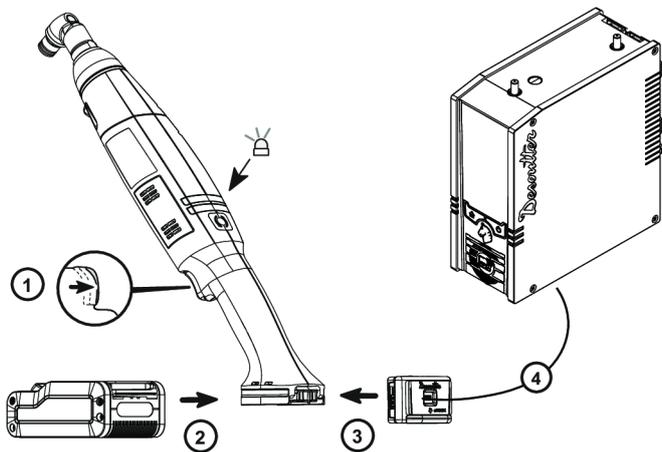


## BLRTC



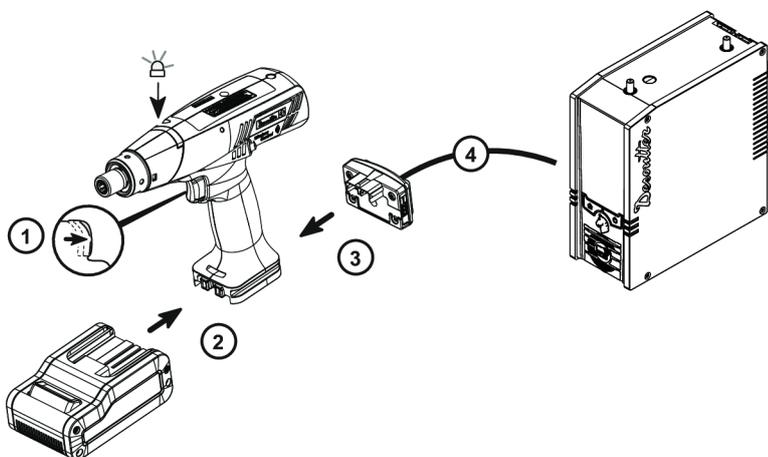
## ELC-A-W

- ⓘ Press the trigger while inserting the battery pack. The reporting LED will blink.



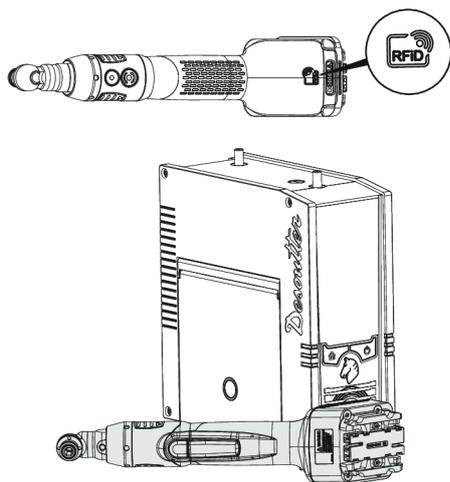
**ELC-P-W**

**i** Press the trigger while inserting the battery pack. The reporting LED will blink.

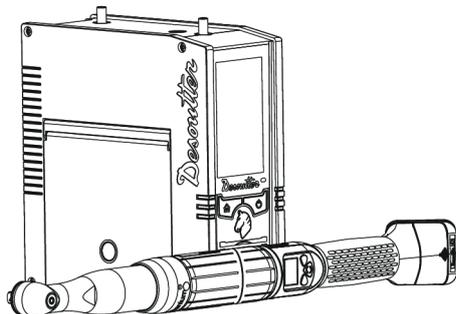
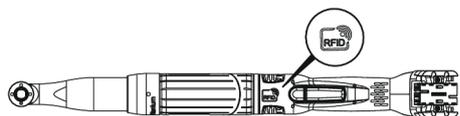


**Pairing tools via RFID**

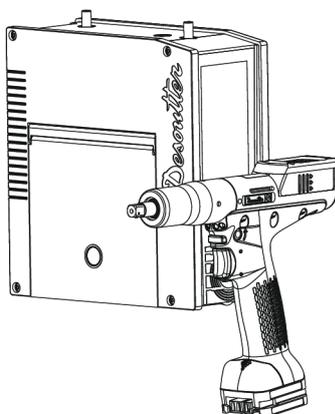
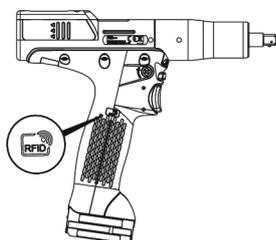
**EABS**



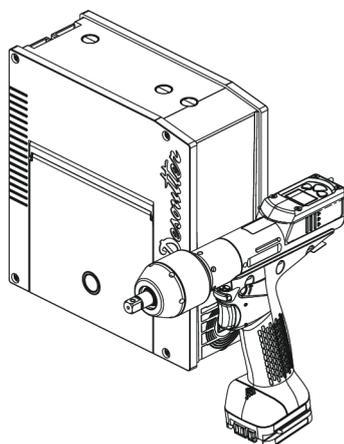
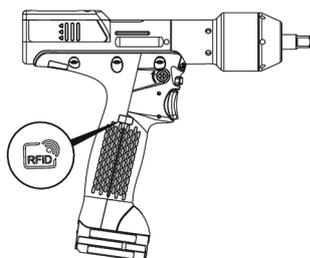
**EABC**



### EPBC



### BLRTC



## Initial Configuration

### Name, torque unit, speed unit, keypad beep, sleep mode



Go to the start screen and tap this icon.

Tap **System** > **User interface** > **Display**.

Customize the name of CONNECT.

Select the torque unit: Nm, ft lb, in lb, kg m, kg cm, oz in.

Select the speed unit: rpm or % of maximum tool speed.

Tick/untick "Keypad beep enabled" to enable/disable the beep sound.

#### **Backlight auto off** (sleep mode)

The screen will be automatically turned off after the timeout.

The screen will turn on as soon as the screen is touched or when a tightening result is displayed.

#### **Back light timeout**

The timeout value for the automatic switching off can be set between 1 and 60 minutes.



Tap this icon to validate.

## **Setting date, time and synchronization**

This function is used to synchronize the system date and time to ensure that the tightening results are stored with the correct date and time.



Go to the start screen and tap this icon.

Tap **System** > **User interface** > **Date and time**.

Tap the current date and time box to update them if needed.

Select the date and time format.

- DD/MM/YY hh:mm:ss
- YY/MM/DD hh:mm:ss
- MM/DD/YY hh:mm:ss

Select the "Sync source" which will set the date and time in CONNECT.

For example: If "Sync source" is set to "CVI CONFIG", the date and time of CONNECT will be updated during the data transfer.

- None
- CVI CONFIG
- CVINet
- Fieldbus
- Ethernet protocol
- Server NTP --> Enter the server address and the time zone.
- Toolsnet



Tap this icon to validate.

## **How to change the language**



Go to the start screen and tap this icon.

Tap **System** > **User interface** > **Language**.

The following languages are available:

English	Russian
French	Portuguese
Spanish	Dutch
German	Portuguese (Brazil)
Swedish	Korean
Italian	Farsi
Japanese	Czech
Chinese	Turkish
Polish	

Select your language.



Tap this icon to validate.

## How to remote the display to your PC or smartphone

### PC/Windows

Use **TightVNC viewer** which is a free remote control software package to see the display of the tightening product and control it with your local mouse and keyboard.

Go to the website <http://www.tightvnc.com> and follow the instructions.

Once the software is downloaded, go to "Start / All programs / TightVNC" folder.

Click "TightVNC Viewer".

Enter the IP address of the tightening product and click "Connect".

You can now control the display from your PC.

For example:



### Apple

Install the free application **Mocha VNC Lite** on your device.

Set up a Wi-Fi access point connected to the tightening product.

Set up the SSID / Password.

Set up the IP address of the access point and connect it to the tightening product.

Check the IP address of the tightening product.

On your Apple device, configure the Wi-Fi network.



Connect to the SSID of the tightening product access point.

Go then on details view.

Move from DHCP to Static.

Put an IP address for your device and a subnet mask in relation with what has been made for the tightening product (for example: 192.168.5.100).

Your device can now talk to the tightening product.

Go to the App store and download the free app "Mocha VNC Lite".

In the app, create a new configuration and enter the IP address of the tightening product in the box "VNC server address".

Click "Connect".

You can now control the display from your PC.

### **Android**

Install the free application **bVNC** on your device.

The process is the same than for the Apple device.

## Operation

### Configuration Instructions

#### How to create a tightening unit

**i** Create one tightening unit per tool.

**i** Before starting, check that the RIM contains **enough UVs** for the planned configuration. If not, go to the chapter *Rebalancing UV to the RIM [Page 60]*

Launch CVI CONFIG.

**i** Plug CONNECT to the computer as shown in chapter *How to link CONNECT to a computer [Page 20]*.

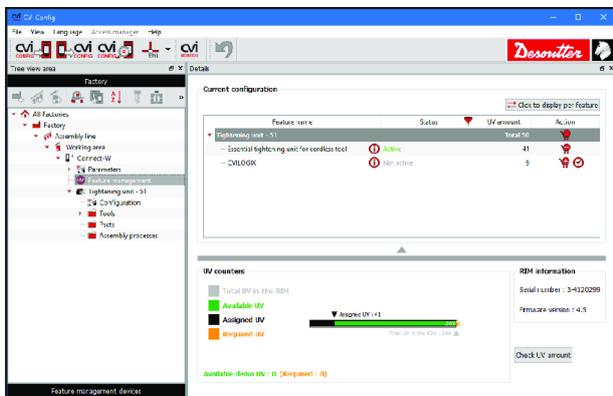
Create a working area and right-click it to add your CONNECT.

Type the IP address and click Update. A green tick indicates the communication is established.

Click CONNECT and right-click to add a tightening unit.

Go to Feature management.

Select the tightening unit and click **Activate**.



**i** You can also activate the feature CVILOGIX if required.

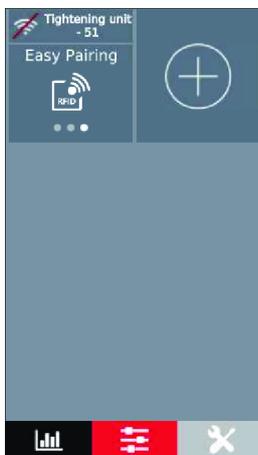


Click this icon to update the product.

#### How to associate a tool to a tightening unit

Select the tightening unit which drives the tool.

Swipe the tile to display Easy pairing.



Pair the tool as shown in chapter *Pairing tools via eDOCK [Page 26]* or *Pairing tools via RFID [Page 28]*.

Tap the tile **Easy pairing** to start the procedure.

Unplug and plug the battery pack to the tool.



The **WI-FI icon** on the top left is activated.  
 The tool is associated to this tightening unit.  
 Go to CVI CONFIG.



Click this icon to update CVI CONFIG.

## How to set up a simple Pset

### Setting the running mode to Pset



Go to the start screen and tap this icon.

Tap **Tightening unit**.

Select the tightening unit in the list.



Tap this icon to edit.



Go to the box **Running mode** and select **Pset**.



Tap this icon to validate.

### Selecting which source will start the Pset



Go to the start screen and tap this icon.

Tap **Tightening unit**.

Select the tightening unit in the list.



Tap this icon to edit.

Go to the box **Pset source** and select **Front panel**.

Other possibilities are as follows:

- I/O
- CVILOGIX
- Open Protocol
- Fieldbus
- Customized protocol
- Tool display



Tap this icon to validate.

### Setting the Pset

**i** The tool must be connected.

Keep the tool awake by pressing the trigger, the run reverse button or the OK button.



Go to the start screen and tap this icon.

Tap **Pset**.

Select the tightening unit which drives the tool (Tightening unit - 51 in the example).



Tap this icon.

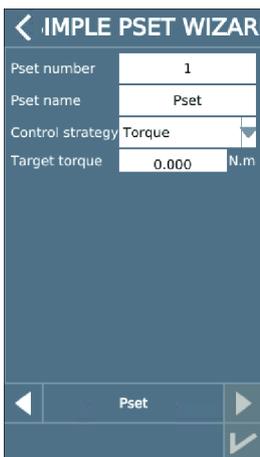


Keep the tool connected.

Tick **Simple mode**.



Tap this icon.



Tap the box **Target torque**.



Tap this icon to clean the box.

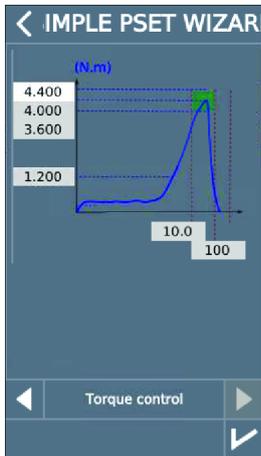
Type your target torque.



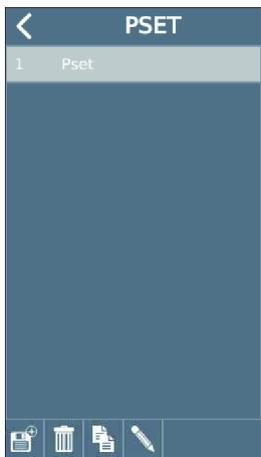
Tap this icon to validate.



Tap this icon.



Tap this icon to validate.



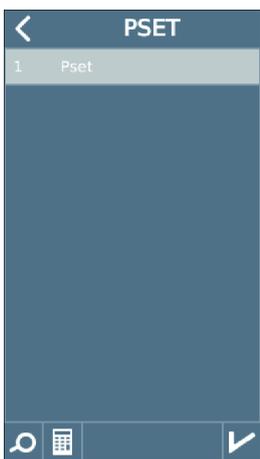
Tap this button on the front panel to display the start screen.



Swipe the tile to the right to access the Pset.



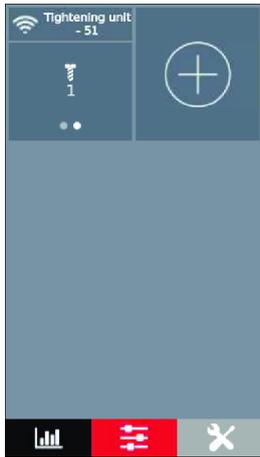
Tap this icon.



Select **Pset 1** in the list.

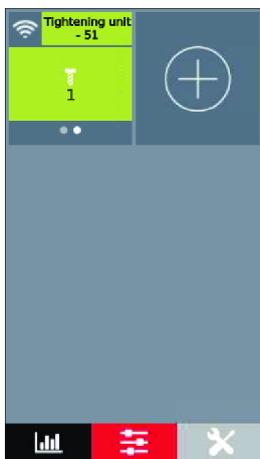


Tap this icon to validate.



### Executing the Pset

Press the tool trigger to run Pset 1.



Swipe the tile to display the results.



Tightening unit  
- 51

Tap the title of the tile.

The simple view is displayed by default.



Tap this icon to see the other possible views

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

**Detailed view**



**Curves view**

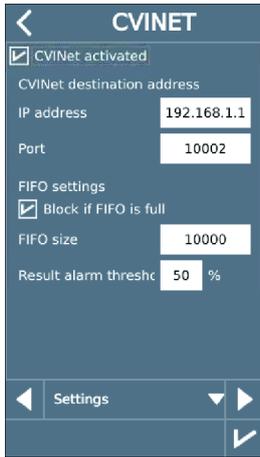


**Sending results to CVINET WEB database**



Go to the start screen and tap this icon.

Tap **System** > **Peripherals** > **CVINET**.



Tick the box "CVINet activated".



Tap this icon.

Description	Parameters	Factory settings
Identifiers of the server or computer where CVINET WEB database is installed.	IP address	192.168.1.1
	Port	10002
FIFO settings	Block if FIFO is full	Enabled
	FIFO size	10000
	Result alarm threshold	50%



The system is regularly sending results to CVINet.

The purpose is to provide a full traceability even when the network connection is unstable.

1. The system is able to keep a defined number of results previously generated by each tightening unit (typically 10,000).

The alarm threshold corresponds to the percentage of these results that have not been sent to the server and stored in the FIFO memory.

2. When option "Block if FIFO is full" is enabled, a tightening unit is locked when the FIFO level is 100%. It allows to ensure traceability of all generated results. The tightening unit is unlocked when connection is re-established and FIFO level is under 100%. When disabled, no lock is set when FIFO level is 100%, and traceability of all results is not ensured.



Tap this icon to validate.

## How to set up a simple Assembly Process

### Setting the running mode to Assembly Process



Go to the start screen and tap this icon.

Tap **Tightening unit**.

Select the tightening unit in the list.



Tap this icon to edit.

Go to the box **Running mode** and select **Assembly Process**.



Tap this icon to validate.

### Creating an Assembly Process



Go to the start screen and tap this icon.

Tap **Assembly Process**.



Tap this icon.

Enter a description.

Select **Front panel** as the source which will start the Assembly Process.

Other possibilities are as follows:

- I/O
- CVILOGIX
- Open Protocol
- Fieldbus
- Customized protocol
- Tool display

Select the Pset to execute.

Enter the batch size i.e. the number of times the Pset will be executed: 1-99 or unlimited.

Example:

ASSEMBLY PROCE..

Number: 1

Description: Assembly process

Selection source: CV13 front panel

Pset: 2 - Pset

Batch size: 4  Unlimited

Basic Information



Tap this icon to validate.

### Executing the Assembly Process



Tap this button on the front panel to display the start screen.

Swipe the tile.

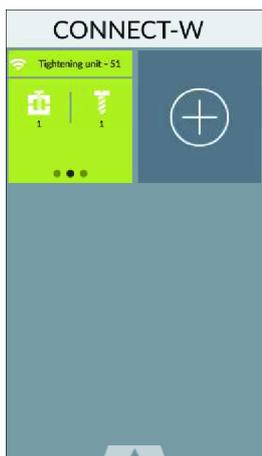


Click the body of the tile.  
Select **Assembly Process 1** in the list.



The tool is ready to execute Assembly Process 1 with Pset 1.  
Apply the tool to the joint to tighten.  
Press the tool trigger to execute the Assembly Process.

Go to CONNECT.



Click **Tightening 51** to have access to the display selection.



Click this icon to access to the different types of views.

Click **Ellipse** to see what has been done.



Or click **Assembly process** to see what is going on.



When the Assembly Process is done, the tool is locked again waiting for the next one.



Click this icon to see the reason why the tool is locked.

## How to set up Fieldbus

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

## Operating Instructions

### How to perform actions on the on-going Assembly Process

At any time during the process, you can do the following actions.

- Abort
- Increment the batch
- Decrement the batch
- Reset the batch
- Reset the retries

### How to select another Pset or Assembly Process



Tap this button on the front panel to display the start screen.

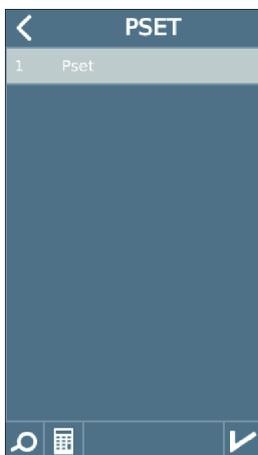
Go to this type of display.  
Select the tightening unit.



Tap this icon to display the list of Assembly Processes available.



Tap this icon to display the list of Psets available.



Select the Pset or Assembly Process in the list.

or



Tap this icon to search for a Pset not displayed in the list.



Tap this icon to type directly the Pset number in the digital keyboard.



Tap this icon to validate.

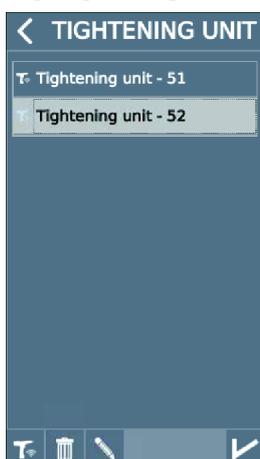
## How to get and read curves

### How to get curves displayed



Go to the start screen and tap this icon.

Tap **Tightening unit**.



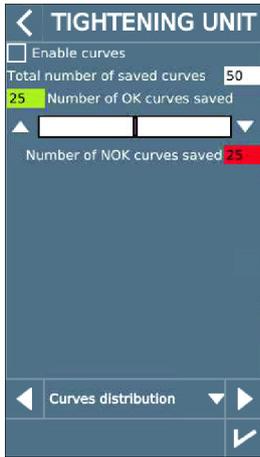
Select the tightening unit in the list.



Tap this icon to edit.



Tap this icon up to the screen **Curves distribution**.



Tick **Enable curves**.

**i** It may happen that there is no curve because the results are not representative.



Tap this icon to validate.

### How to read curves



Go to the start screen and tap this icon.



Tap the torque value of result 20. The line turns grey.



Tap this icon.



Tap the icon on the left to go to the last value.



Tap the icon on the right to go to the first value.



Tap this area to get more information about the result.

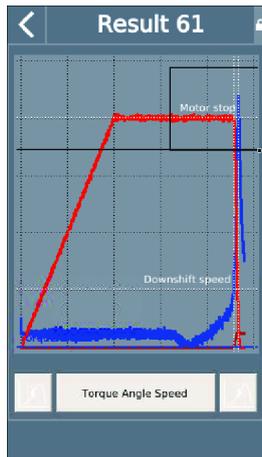
Tick the values you want to have by default each time a curve is displayed.  
Click **Curves selection** to validate your selection.

Tick **Show markers**.

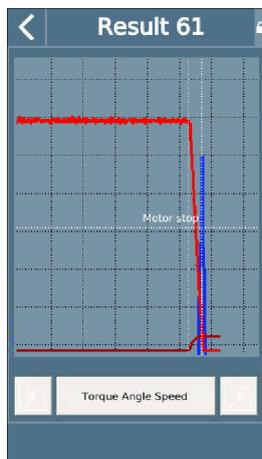
For example:



### How to zoom in a curve



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



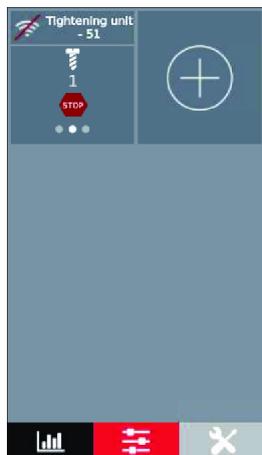
Tap anywhere to return to the initial screen.

## Shortcuts and tips

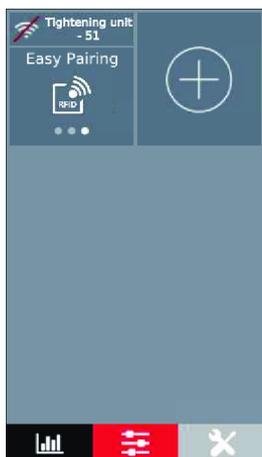
### How to quickly pair a tool

When the tool is not connected, i.e. the WI-FI icon is not active, it is possible to quickly pair another tool.

See below that the tool of Tightening Unit -51 is not active.



Swipe the tile to display the **Easy pairing** shortcut.



Execute the pairing via eDOCK or RFID as described previously.

**How to quickly get the full screen view of a tightening unit**



Click the name of the tightening unit to access to the last view selected.



Click this icon to access to the main menu.



Click this icon to access to the different types of views.

- Simple
- Detailed
- Curves

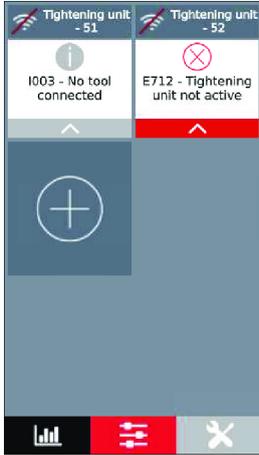


Tap this icon to get the list of Psets available for this tightening unit.  
Select a Pset.

### How to use shortcuts of tiles and pop-up messages

**i** The way to handle shortcuts of tiles is the same, regardless the color.

Example:



Tap the body of the tile.



Tap this icon to hide the message.



Tap this icon to display the QR code (Quick Response code).  
To quit, tap the image.



Tap this icon to clear (acknowledge) the message.



Tap this icon to display the procedure to follow.

### How to quickly select a network interface (CONNECT)

Go to the tree view.

Select the product.

Go the tool bar on the top.



Right-click this icon to select the interface.

Select:

- Ethernet 1
- Ethernet 2 (if defined)
- WI-FI (CONNECT-W)

### Results monitoring with CVIMONITOR

CVIMONITOR enables to show:

- The result in real-time, detailed per step and with the reason for the tool stop.
- Results curves
- Detailed information of a result
- Results history

Launch CVI MONITOR software from the launchbar on your computer desktop.  
Type the IP of the relevant system and click "Select".



Click this icon to display the screen.

Go to the menu in the top bar and click **View / Monitoring**.  
Select the views to display at your convenience.



Click this icon to disable the real-time refreshing.



Click this icon to enable the real-time refreshing.

### Result in real time

Results are shown for a specific tool.



The tool report is OK.



The tool report is NOK.

Tolerances are shown below the tool result.

Additional information is displayed:

- Tool number
- Tool serial number (manufacturer data)
- Tool stop source (target reached or reason for NOK)
- Cable serial number (manufacturer data)

- i** In case of systems having several tools in a tightening unit, the global report is then is the aggregated result of all tools results.  
If all tools reports are OK, the global report is OK.  
If one or more tools are NOK, the global report is NOK.

The **step status** shows the result for a specific step.



The step report is OK.



The step report is NOK.

- i** To have the "Result per step" recorded in the tightening results, be sure you have previously ticked the box "Store results" in the general parameters of the step (in CVI CONFIG).

Additional information is displayed:

- Torque and angle (systematically monitored)  
Other monitorings are:
  - peak torque
  - final angle
  - current check at end
  - slip off
  - stick slip
  - time
  - rundown angle
  - torque rate
- Step number
- Step stop source (target reached or reason for NOK)

### Results curves

The result curves are the last 20 curves stored by the system.

- i** OK/NOK curves distribution is depending on the configuration set either in the system or in CVI CONFIG.



Click this icon before working on the curve.



Click this icon to export results to .csv file.



Click this icon to print the curve.

Select the **type of curve** to view in the *Torque/angle* drop-down box.

- Time curves
  - Torque and angle versus time
  - Torque, angle and current versus time
  - Torque, angle, current and speed versus time
  - Torque rate versus time
- Torque/Angle
- Torque/Overall angle
  - This type is used to see the angle over several steps or from the tightening start.

Use **Control Markers** to focus -for example- on Torque peak, Final angle, Target torque rate.

Use **Monitoring markers** to show -for example- the motor stop.

Choose to display the **curve for all steps or for a specific step** in the *All* drop-down box.



Click this icon to zoom out.



Click this icon to zoom in.  
Use the mouse to draw an area.  
Use the mouse to follow the points and mark a specific area.  
Use the right click of the mouse to come back to the previous view.



Slope information is shown on the right side of the curve.



Click this icon to clear the Zoom or Slope.

### **Detailed information of a result**

This screen enables you to monitor the tightening process in real-time.

The following details can be displayed:

- System name
- Pset number
- Assembly Process number
- Batch count
- Date and time
- Result number
- Result name
- Comment
- Tightening unit name
- Identifier name (up to 10 different identifiers can be scanned by a barcode or sent via Open Protocol / Fieldbus / CVILOGIX)

### **Results history**

This screen shows the overview of the last 100 results.

- Result ID (status and number)



The report is OK.



The report is NOK.



Loosening operation

- Tool number
- Torque value
- Angle value

Click **Load results** to upload the last 100 results from the tool.

Click **Export results to CSV** to save results in a file at *C:\Program Files (x86)\Desoutter\CVI CONFIG\cvi3monitor* by default.

## How to display and read results

### Displaying the results



Go to the start screen and tap this icon.

Result	Date	Time	Torque	Angle
✓ 16	22/01/2018	17:59:58		
52	6.354	32.1		
✓ 15	22/01/2018	17:28:56		
52	6.438	14.5		
✗ 14	22/01/2018	17:28:49		
52	0.750	0.0		
✓ 13	22/01/2018	17:28:42		
52	6.417	16.4		

A green line indicates that the report is OK.

A red line indicates 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 the list.

The last results are displayed, the most recent being on the top.

The number of results is displayed on the top.



Tap this icon up to select another tightening unit.

### Searching for a specific result



Go to the start screen and tap this icon.

Status	Result	Date	Time
✓	20	04/06/2018	16:47:17
✓	51	4.005	35.7
✗	19	04/06/2018	16:47:09
✗	51	1.108	0.0
✗	18	04/06/2018	16:47:03
✗	51	1.370	20.9
✓	17	04/06/2018	16:46:57
✓	51	4.015	28.8
✓	16	04/06/2018	16:46:47
✓	51	4.020	26.4



Select a result and tap this icon.

Field	Value	Unit
Target reached	17F32088	
Pset	1	
Torque	4.005	N.m
Angle	35.7	Deg

The following information is displayed:

- stop source
- tool serial number
- Pset number
- torque value
- angle value



Tap this icon to see the next result.

### Filtering results



Go to the start screen and tap this icon.

RESULTS			
Nb results: 20			
✓ 20	04/06/2018	16:47:17	▲
51	4.005	35.7	
⊗ 19	04/06/2018	16:47:09	▲
51	1.108	0.0	
⊗ 18	04/06/2018	16:47:03	▲
51	1.370	20.9	
✓ 17	04/06/2018	16:46:57	▼
51	4.015	28.8	
✓ 16	04/06/2018	16:46:47	▼
51	4.020	26.4	



Filter

Tick this icon.

RESULT FILTER	
General status	All
Stop type	All
Torque trend	All
Angle trend	All
Current	All

Tap the down arrow to see criteria.

Select the 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



Tap this icon to validate.

### How to quickly select a network interface (CONNECT)

Go to the tree view.

Select the product.

Go the tool bar on the top.



Right-click this icon to select the interface.

Select:

- Ethernet 1
- Ethernet 2 (if defined)
- WI-FI (CONNECT-W)

## Service

### About features

#### How to read the status of features

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

#### How to add a feature

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

Launch **CVI CONFIG**.

Go to the tree view.

Select **CONNECT**.

Select **Tightening unit - 51**.

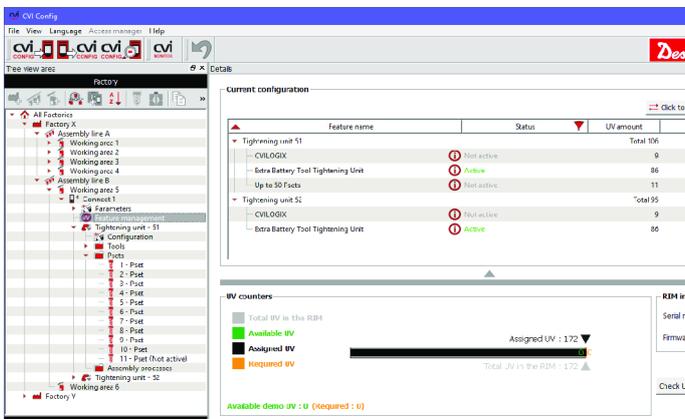
Create 10 Psets.

- i** Reminder: you can create up to 10 Psets without adding UVs to CONNECT. From the 11th Pset, you will have to purchase the feature **Up to 50 Psets**.

Add 1 additional Pset.

See that Pset 11 is not active.

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



See the feature **Up to 50 Psets** is not active.



Click this icon to update the product.

Click "Check UV amount".

If necessary, fill in the RIM with UVs as described in chapter *Rebalancing UV to the RIM [Page 60]*.



Click this icon to update CVI CONFIG.

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

The number of UVs available is now displayed.

Go to the pane **Current configuration** on the top and click the feature to select it.



Click this icon.

See the feature **Up to 50 Psets is Active**.  
Pset 11 is active in the tree view.



Click this icon to update the product.

## ***How to save and back up data***

### **Saving results on a USB key**



Make sure not to tighten during the backup of results.

Plug a USB key to the bottom panel.



Go to the start screen and tap this icon.

Tap **System** > **USB key** > **Save**.

Tick the box **Save results**.



Tap this icon to validate.

### **Deleting results from the system**



Go to the start screen and tap this icon.

Tap **System** > **Memory**.

Tap **Erase results**.

A pop-up is shown asking you to confirm.

Tap **YES** or **NO**.

### **Deleting results from the RIM**



Go to the start screen and tap this icon.

Tap **RIM** > **Erase**.

A pop-up is shown asking you to confirm.

Tap **YES** or **NO**.

### **How to get a snapshot of an existing CONNECT**



Make sure not to tighten during the backup.



Go to the start screen and tap this icon.

Tap **RIM** > **Backup / Restore**.

Select **Manual backup** to create a snapshot of CONNECT in the RIM.

Press **Backup** to start the process.

## How to save CONNECT data in real-time



Go to the start screen and tap this icon.

Tap **RIM** > **Backup / Restore**.

Select **Auto backup** to have each modification saved in real-time.

The RIM acts as a mirror of CONNECT.

Press **Start**.

 The automatic backup can take up to 5 minutes.

## How to transfer data from the RIM to CONNECT



Go to the start screen and tap this icon.

Tap **RIM** > **Backup / Restore**.

Tap **Restore** to start.

## Saving logs automatically

Plug a USB key to the bottom panel.



Go to the start screen and tap this icon.

Tap **System** > **USB key** > **Advanced diagnosis**.

Select a period in hours.

- 1 hour
- 2 hours
- 6 hours
- 12 hours
- 24 hours

Tap **Start**.

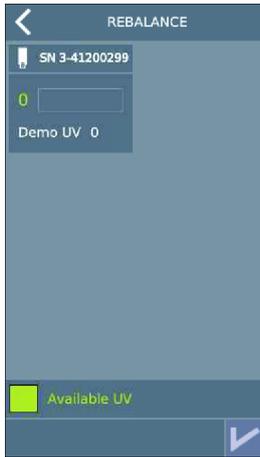
## About UVs

### Rebalancing UV to the RIM

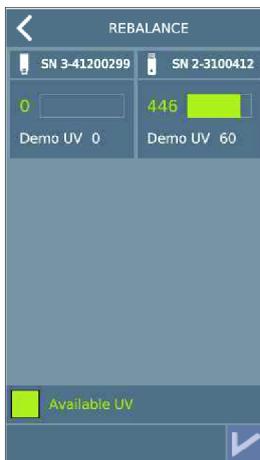


Go to the start screen and tap this icon.

Tap **Feature management** > **Rebalance**.



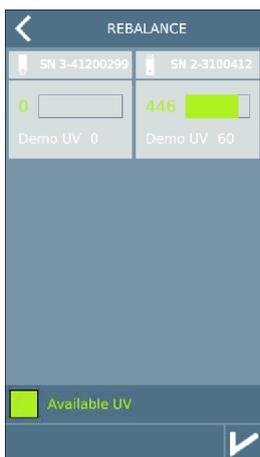
Plug your eWallet to the USB port of the front panel.



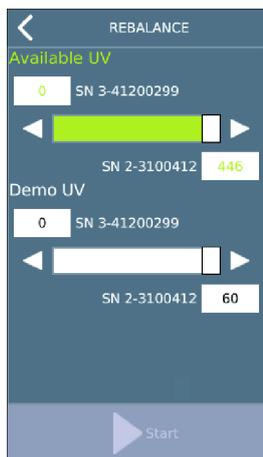
You can replace the name RIM or the serial number by a customized description.  
Tap the serial number or the name RIM and enter the new description.

See the number of UV available in this eWallet.

Tap both tiles to select them.



Tap this icon to validate.



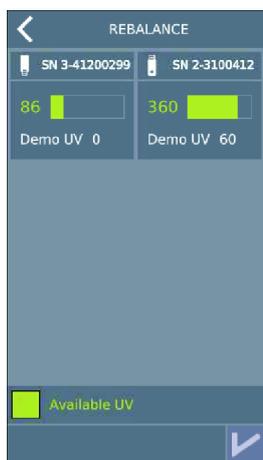
Tap the box "0" of the RIM or slide the cursor to fill in the box with UV.  
Press the button "Start".

- ⓘ Reminder  
86 UV are needed to activate one tightening unit.



The white tick indicates the transfer is done.

 Tap this icon to quit.



See that 86 UV are available in the RIM.

 Tap this button on the front panel to display the start screen.

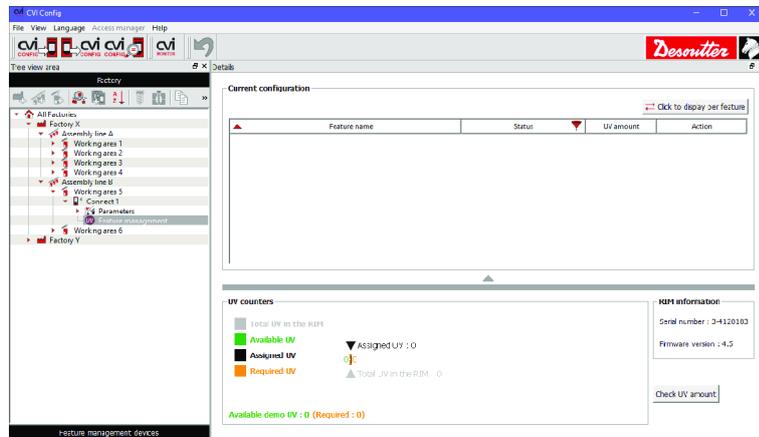
## How to manage UV counters

Launch CVI CONFIG.

Check that CONNECT is connected to the computer.

Go to the tree view and create the product CONNECT.

Click **Feature management**.



Go to the box **UV counters**.

Note that the serial number and the firmware version of the RIM plugged to CONNECT are displayed on the right side.

### Available UVs

**i** Prerequisite: you have already filled in the RIM with the number of UVs necessary for your planned configuration.



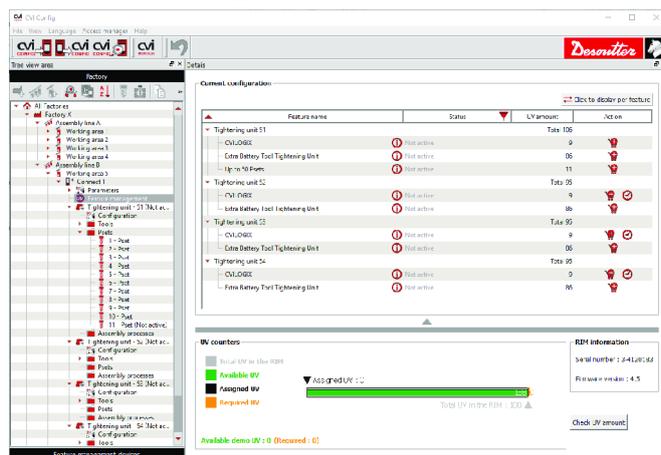
Click this icon to update CVI CONFIG.

Go to the tree view.

Select **CONNECT**.

Add 4 tightening units and Pset 11 in **Tightening unit - 51**.

Click **Feature management**.

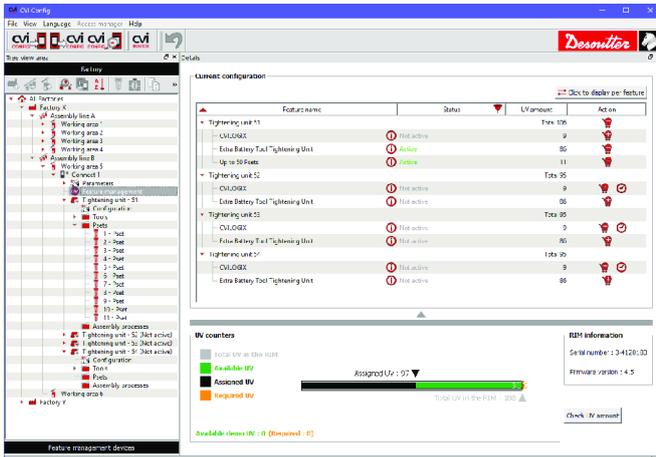


Click this icon to update the product.

Go to the box **UV counters**.

Note that 188 UVs are available.

Activate **Tightening unit - 51** and the feature **Up to 50 Psets**.

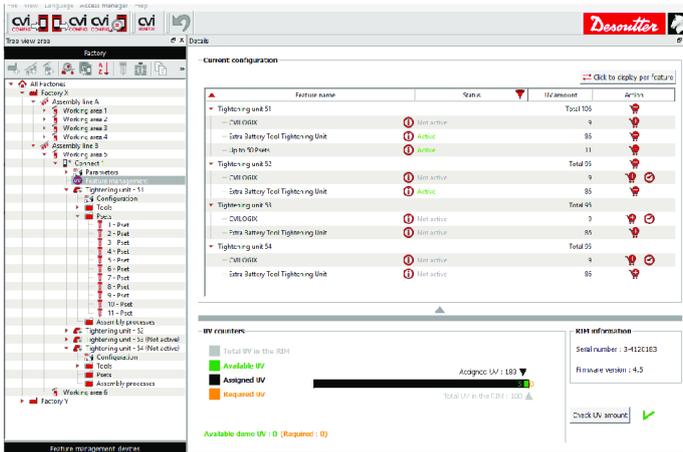


Click this icon to update the product.

Note that 97 UVs have been assigned and that 91 UVs remain available.

### Assigned UVs

Activate Tightening unit - 52.

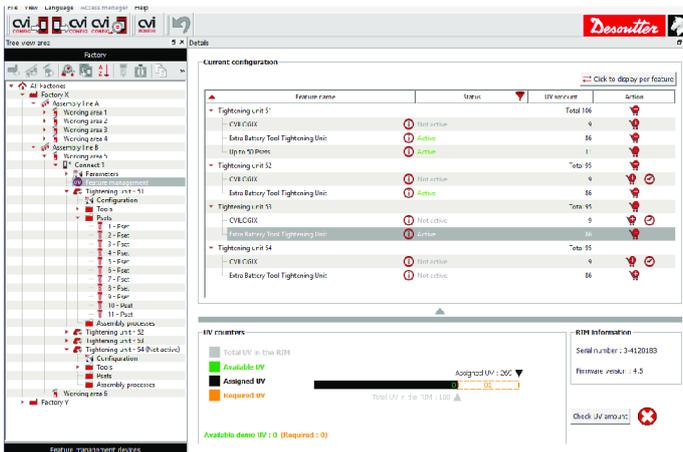


Click this icon to update the product.

Note that 183 UVs have been assigned and that 5 UVs remain available.

### Required UVs

Activate Tightening unit - 53.



Note that 81 UVs are required to fit the configuration.

Click **Check UV amount**.

The red cross indicated that UVs are missing.

It is not possible to transfer the configuration to CONNECT.

Fill in the RIM of CONNECT with the required UVs.



Click this icon to update CVI CONFIG.

Restart the activation of the feature.

### How to read UV graph

Launch CVI CONFIG.

Check that CONNECT is connected to the computer.

Go to the tree view and select the product **CONNECT**.



Click this icon to update CVI CONFIG.

Click **Feature management**.



Symbol	Number of UVs	Color	Description
▲	188	grey	Total number of UVs present in the RIM of this CONNECT.
▼	172	black	Number of UVs assigned to this CONNECT.
■	26	green	Number of UVs available in the RIM of this CONNECT.
■	0	orange	Number of UVs required for the configuration of this CONNECT.

**i** Assigned UVs cannot be rebalanced.

De-activate the feature to turn it available.

### How to check UVs amount

Launch CVI CONFIG.

Check that CONNECT is connected to the computer.

Go to the tree view and select the product **CONNECT**.



Click this icon to update CVI CONFIG.

Click **Feature management**.

Click **Check UV amount**.



The number of UVs is sufficient to accept the configuration.



The number of UVs is not sufficient to accept the configuration.

## Reset to factory



Go to the start screen and tap this icon.

Tap **System** > **Memory**.

Tap **Reset to factory**.

A pop-up appears asking you to confirm.

Tap **YES** or **NO**.

**i** Only UVs are kept in the RIM.

## 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 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.

## Tool maintenance

### Getting information about tools

The following information is available in read-only mode.

- identification
- characteristics
- configuration
- calibration alarm
- temperature alarm



Connect the tool to activate the screens.  
Press the trigger to wake up the tool.



Go to the start screen and tap this icon.

### Tap Tool.



### Tap Tool > Identification.

Select the tightening unit.

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

Use the arrows to display other pages.

The **characteristics** of the tool are:

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

Tap **Tool > Configuration**.

Select the tightening unit.

The **configuration** 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

- i** 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



Go to the start screen and tap this icon.

Tap **Tool > Monitoring**.



Select the tightening unit.

- ⓘ 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.

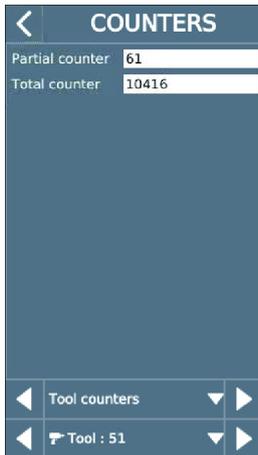
Contact your Desoutter representative to get more information and support.

## Monitoring the tool counters



Go to the start screen and tap this icon.

Tap **Tool** > **Counters**.



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

The partial counter gives the number of tightenings and run reverses since the last reset.

## Monitoring the tool temperature



Go to the start screen and tap this icon.

Tap **Tool** > **Monitoring**.



Tap this icon.



Select the tightening unit.

- ⓘ When the alarm is reached, a pop-up appears on the tool display. The tool is locked because the motor is too hot. Leave the tool until the temperature decreases. Press the trigger from time to time to check if the tool is still locked.

## Maintenance Instructions

### Read before maintenance

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.

### Upgrading CONNECT

#### Checking the existing system firmware



Go to the start screen and tap this icon.

Tap **Versions**.



Tap this icon to quit.

#### Checking the firmware version with CVIMONITOR

Launch CVI MONITOR software from the launchbar on your computer desktop.

Type the IP of the relevant system and click "Select".



Click this icon to display information about the system.

#### Upgrading the firmware

Contact your Desoutter representative to get the last firmware version.

Copy the files to the **root** of a USB key.

Plug the USB key into the front panel.



Go to the start screen and tap this icon.

Tap **System** > **USB key** > **Upgrade SW**.

Tap **Yes**.

CONNECT beeps during 2 seconds and starts the process.

Do not switch off CONNECT. Wait for the automatic reboot.

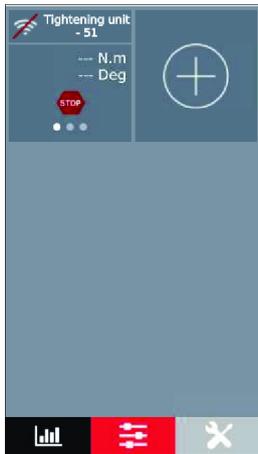
The update lasts a few minutes.

When the upgrade is successful, the green LED of the front panel is ON and steady.

## Troubleshooting

### *Tool connection lost*

When the connection with the tool is lost, the screen is as follows.



The WI-FI icon on the top left is not activated.

The tool is not connected anymore.



Click this icon to see the reason why the tool is locked.

### *What if the tightening unit is not active*



See above that Tightening unit - 53 is not active.

The tool can be paired but it will not run.

Go to the menu **Feature management** and rebalance the required UVs to the RIM.

Plug an Ethernet cable to any Ethernet port of CONNECT and to a computer.

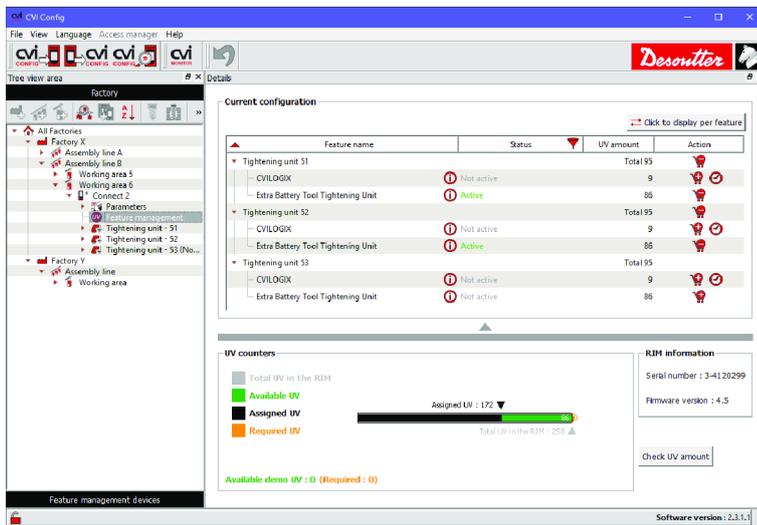
Launch CVI CONFIG.

Select the relevant CONNECT.

Click **Feature management**.



Click this icon to update CVI CONFIG.



Go to the pane **Current configuration** on the top right and select the feature to activate.



Click this icon.



Click this icon to update the product.

Go to CONNECT and tap its screen to wake it up.



Tap this button on the front panel to display the start screen.



The tightening unit is active.

### How to use an existing RIM into another CONNECT



Before unplugging the RIM, go to Maintenance > RIM and select "Eject".

Plug the RIM into another CONNECT.  
A pop-up appears asking you to backup or restore.



Go to the start screen and tap this icon.

Tap **RIM > Backup / Restore**.

Press **Restore** to overwrite the content of CONNECT.  
CONNECT will re-start automatically.

### How to view user logs with CVIMONITOR

CVIMONITOR enables to view the user logs history of the connected system.  
A problem solving guidance is displayed for each main issue.

Refer to the chapter **List of user infos** in this manual to get the complete list.

Launch CVI MONITOR software from the launchbar on your computer desktop.  
Type the IP of the relevant system and click "Select".



Click this icon to display the screen.

Click **View** in the top bar to display the window **Details**.

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.

Click the column title to sort by description, date, ID.

Use **Filter** to focus on a type of user info.  
Select **Advanced** to search for a specific topic.

In the window **Details**, Click the **link** to get more information about the resolution procedure.  
You will be redirected to the "Desoutter support" website.

Click **Load user info file** to upload an existing user info file from *C:\Program Files (x86)\Desoutter\CVI CONFIG\cvi3monitor* by default.

\*.txt file has been saved by CVIMONITOR.

\*.zip file has been saved by the function **Save Log** in the system.

Click **Save user info to file** to save a **User info\_2020\_06\_02.txt** file in *C:\Program Files (x86)\Desoutter\CVI CONFIG\cvi3monitor* by default.

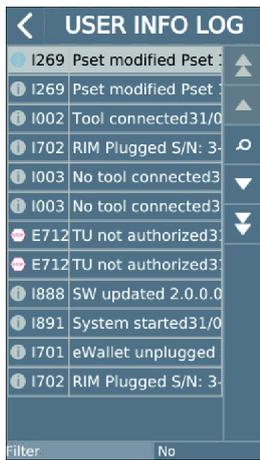
### How to monitor your system by using the user infos

Use the user infos to monitor and analyse all actions performed by the system.  
You can check for example, when a tool has been paired or if a Pset has been modified.



Go to the start screen and tap this icon.

Tap **System** > **User info log**.



The most recent event is on the top.



Select a log and tap this icon to get the details.

Use the up and down arrows to scroll the list.

Tick the box **Filter** to display the filtering options.

- No
- Info
- Warning
- Error

Refer to the chapter "List of user infos" in this manual to get the complete list.

### ***What information to send to Desoutter support***

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

Provide him a zip file containing results, logs and configurations.

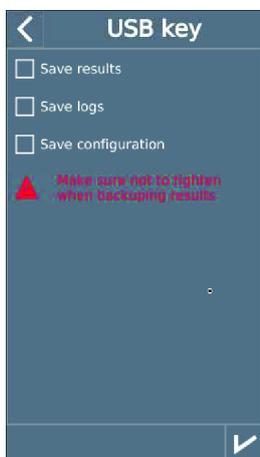
Proceed as follows.

Plug a USB key to the bottom panel.



Go to the start screen and tap this icon.

Tap **System** > **USB key** > **Save**.



Tick all boxes.



Tap this icon to validate.

Remove the USB key and plug it to your computer.

Go to the root of the USB key and zip all folders into one.

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.
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.

Number	Description	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 authentication 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.
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.

Number	Description	Procedure
I226	Error torque	<ol style="list-style-type: none"> <li>1- Tool communication error. Check tool and cable connections.</li> <li>2- Try once again.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
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	<ol style="list-style-type: none"> <li>1- CVINET FIFO has reached the alarm threshold, the connection is lost.</li> <li>2- Check the Ethernet cable.</li> <li>3- Check the Ethernet configuration.</li> <li>4- Check that CVINET is running correctly.</li> </ol>
I242	ToolsNet FIFO alarm	<ol style="list-style-type: none"> <li>1- ToolsNet FIFO has reached the alarm threshold, the connection is lost.</li> <li>2- Check the Ethernet cable.</li> <li>3- Check the Ethernet configuration.</li> <li>4- Check that ToolsNet is running correctly.</li> </ol>
I244	Accessory disconnected	<ol style="list-style-type: none"> <li>1- The accessory at the given address has been disconnected from the eBUS of the system.</li> <li>2- Check the accessory cable.</li> </ol>
I245	Wait report acknowledge	1- Acknowledge report with its corresponding input.
I254	Drive communication error	<ol style="list-style-type: none"> <li>1- Error detected in drive communication.</li> <li>2- Restart the system.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
I259	Reset input active	<ol style="list-style-type: none"> <li>1- "Reset" input is active.</li> <li>2- The tightening unit will unlock when input switches to "Inactive".</li> </ol>
I261	Locked by IPM	<ol style="list-style-type: none"> <li>1- IPM protocol has locked the system.</li> <li>2- Check the connection with the IPM gateway.</li> <li>3- Check the IPM configuration in the system.</li> </ol>
I262	Open Protocol connection lost	1- Open Protocol connection has been lost.
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	<ol style="list-style-type: none"> <li>1- Check tool is compatible with gyroscope (eCompass).</li> <li>2- Else use a tool compatible with gyroscope.</li> <li>3- Else edit your Pset to remove gyroscope settings.</li> </ol>
I310	Identifier OK:	<ol style="list-style-type: none"> <li>1- An identifier has been received and accepted.</li> <li>2- The identifier is matching an Assembly Process start condition.</li> </ol>
I311	Identifier NOK:	<ol style="list-style-type: none"> <li>1- An identifier has been received.</li> <li>2- The identifier does not match any Assembly Process start condition.</li> </ol>

Number	Description	Procedure
I312	Access expired	<ol style="list-style-type: none"> <li>1- The access rights on the USB key cannot be read.</li> <li>2- Unplug the key and insert it again.</li> <li>3- If the issue is persistent, the access right file is probably corrupt.</li> <li>4- Contact your "CVI Key" administrator.</li> </ol>
I313	Access invalid	<ol style="list-style-type: none"> <li>1- The access rights on the USB key cannot be read.</li> <li>2- Unplug the key and insert it again.</li> <li>3- If the issue is persistent, the access right file is probably corrupt.</li> <li>4- Contact your "CVI Key" administrator.</li> </ol>
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	<ol style="list-style-type: none"> <li>1- Network configuration failed.</li> <li>2- Check your settings.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
I500	CVILOGIX user info	Message generated by CVILOGIX program.
I503	CVILOGIX	<ol style="list-style-type: none"> <li>1- Tool has been locked by CVILOGIX.</li> <li>2- Check the CVILOGIX program status.</li> <li>3- Check an ePOD is plugged to the system.</li> </ol>
I700	eWallet plugged	eWallet plugged
I701	eWallet unplugged	<ol style="list-style-type: none"> <li>1- eWallet unplugged.</li> <li>2- Try unplugging the key and insert it again.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
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	<ol style="list-style-type: none"> <li>1- Software downgrade is not allowed for this version.</li> <li>2- Check the software image version on your USB key.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
I900	Software update failed	<ol style="list-style-type: none"> <li>1- Software upgrade failed.</li> <li>2- Do not remove the USB key and restart the system.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
I901	Software not found	<ol style="list-style-type: none"> <li>1- The software upgrade failed: software image invalid.</li> <li>2- Check your USB key: it must have only one image at the root directory.</li> </ol>
I902	Software invalid	<ol style="list-style-type: none"> <li>1- The software upgrade failed: software image invalid.</li> <li>2- Remove and copy again your software image.</li> <li>3- Try another USB key.</li> <li>4- Contact your Desoutter representative for more information.</li> </ol>
I903	Software updater missing	<ol style="list-style-type: none"> <li>1- The software updater is not available or damaged.</li> <li>2- Contact your Desoutter representative for more information.</li> </ol>
I904	Backup disabled	<ol style="list-style-type: none"> <li>1- The "Save parameters" utility is not available.</li> <li>2- Contact your Desoutter representative for more information.</li> </ol>

Number	Description	Procedure
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.
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.

Number	Description	Procedure
W220	Hardware trip	<ol style="list-style-type: none"> <li>1- Drive hardware failure.</li> <li>2- Safety issue.</li> <li>3- Contact your Desoutter representative for support.</li> </ol>
W229	Drive PWM error	<ol style="list-style-type: none"> <li>1- Software failure.</li> <li>2- Restart the system.</li> <li>3- If the problem occurs again, contact your Desoutter representative for support.</li> </ol>
W246	Synchro I/O problem	<ol style="list-style-type: none"> <li>1- Error detected on synchronisation input.</li> <li>2- Check the configuration of I/O.</li> <li>3- Check the synchronisation cable.</li> </ol>
W250	Pset corrupted	<ol style="list-style-type: none"> <li>1- Pset is not defined correctly.</li> <li>2- Check the Pset.</li> </ol>
W253	Incorrect tool Id	<ol style="list-style-type: none"> <li>1- Pset is not defined correctly.</li> <li>2- One tool declared in the Pset is not part of the tightening unit.</li> <li>3- Check the Pset.</li> </ol>
W257	Remote start error	<ol style="list-style-type: none"> <li>1- Verify the tool trigger is correctly pushed.</li> </ol>
W258	Calibration need Pset mode	<ol style="list-style-type: none"> <li>1- For tool calibration, the tightening unit has to be in "Pset" mode.</li> <li>2- Change the tightening unit mode into "Pset" mode.</li> </ol>
W276	Database error	<ol style="list-style-type: none"> <li>1- It was not possible to access the database.</li> <li>2- Try to clear the database.</li> <li>3- If problem persists, contact your Desoutter representative for support.</li> </ol>
W726	Desoutter Protocol: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
W727	Desoutter MIDs not authorized	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "Feature management" menu.</li> </ol>
W735	Ford Protocol: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
W736	Ford Protocol not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "Feature management" menu.</li> </ol>
W741	CVILOGIX: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
W742	CVILOGIX not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "Feature management" menu.</li> </ol>
W743	Up to 50 Pset: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
W744	Up to 250 Pset: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
W745	Up to 50 AP: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>

Number	Description	Procedure
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.
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.

Number	Description	Procedure
E233	CVINET FIFO full	<ol style="list-style-type: none"> <li>1- CVINET FIFO is full, the connection has been lost.</li> <li>2- Check the Ethernet cable.</li> <li>3- Check the Ethernet configuration.</li> <li>4- Check that CVINET is running correctly.</li> </ol>
E236	ToolsNet FIFO full	<ol style="list-style-type: none"> <li>1- ToolsNet FIFO is full, the connection has been lost.</li> <li>2- Check the Ethernet cable.</li> <li>3- Check the Ethernet configuration.</li> <li>4- Check that ToolsNet is running correctly.</li> </ol>
E240	XML not authorized	<ol style="list-style-type: none"> <li>1- The selected XML protocol is not authorized.</li> <li>2- Check the ePOD characteristics.</li> </ol>
E243	PFCS not authorized	<ol style="list-style-type: none"> <li>1- The selected PFCS protocol is not authorized.</li> <li>2- Check the ePOD characteristics.</li> </ol>
E247	XML version conflict	<ol style="list-style-type: none"> <li>1- Conflict detected in Audi / VW XML protocol version.</li> <li>2- Check the coherence of the version between the system and master PC/PLC.</li> </ol>
E248	SAS order failed	<ol style="list-style-type: none"> <li>1- Fieldbus SAS order has failed.</li> <li>2- Check the value of RRG1, SIO, etc.</li> </ol>
E249	XML PRG 0	<ol style="list-style-type: none"> <li>1- The PRG value 0 has been set by Fieldbus.</li> </ol>
E255	Drive choke too hot	<ol style="list-style-type: none"> <li>1- Power electronics too warm.</li> <li>2- Let the system cool down.</li> </ol>
E256	Motor too hot	<ol style="list-style-type: none"> <li>1- Tool is locked because the maximum motor temperature has been reached.</li> <li>2- Tool will remain locked until the motor temperature comes back to its normal value.</li> </ol>
E260	IPM not authorized	<ol style="list-style-type: none"> <li>1- The selected IPM protocol is not authorized.</li> <li>2- Check the ePOD characteristics.</li> </ol>
E265	Socket(s) usable with more than one tightening unit	<ol style="list-style-type: none"> <li>1- Reconfigure sockets combination to resolve conflicts.</li> </ol>
E268	CVINET incompatible	<ol style="list-style-type: none"> <li>1- Update CVINET WEB software.</li> </ol>
E277	Half DC bus voltage out of range	<ol style="list-style-type: none"> <li>1- Half DC-bus voltage is out of range.</li> <li>2- Switch off the system. Wait at least 30 seconds. Switch on the system and try again.</li> <li>3- If the problem occurs again, change the drive and try again.</li> <li>4- Contact your Desoutter representative for support.</li> </ol>
E278	Pre-loaded BUS capacitors failure	<ol style="list-style-type: none"> <li>1- Bus capacitors are not correctly pre-loaded.</li> <li>2- Switch off the system. Wait at least 30 seconds. Switch on the system.</li> <li>3- If the problem occurs again, change the drive and try again.</li> <li>4- Contact your Desoutter representative for support.</li> </ol>
E280	Result not stored	<ol style="list-style-type: none"> <li>1- It was not possible to persist the tightening result on ePOD.</li> <li>2- Switch off the system. Wait at least 30 seconds. Switch on the system.</li> <li>3- Contact your Desoutter representative for support.</li> </ol>
E502	CVILOGIX user info	Message generated by CVILOGIX program.
E704	Missing UV	<ol style="list-style-type: none"> <li>1- The UV amount of the configuration is greater than the number of UVs available in the RIM.</li> <li>2- Allocate UVs to this RIM.</li> <li>3- Contact your Desoutter representative for more information.</li> </ol>

Number	Description	Procedure
E705	Missing demo UV	<ol style="list-style-type: none"> <li>1- The demo UV amount of the configuration is greater than the number of demo UVs available in the RIM.</li> <li>2- Allocate demo UVs to this RIM.</li> <li>3- Contact your Desoutter representative for more information.</li> </ol>
E706	Missing UV/demo UV	<ol style="list-style-type: none"> <li>1- The demo UV amount of the configuration is greater than the number of demo UVs available in the RIM.</li> <li>2- Allocate demo UVs to this RIM.</li> <li>3- Contact your Desoutter representative for more information.</li> </ol>
E711	Tightening Unit: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
E712	Tightening Unit not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "feature management" menu.</li> </ol>
E717	Up to 50 Pset: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
E718	Up to 250 Pset: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
E719	Up to 50 AP: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
E720	Up to 250 AP: demo mode expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
E721	Up to 50 Pset: not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "feature management" menu.</li> </ol>
E722	Up to 250 Pset: not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "feature management" menu.</li> </ol>
E723	Up to 50 AP: not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "feature management" menu.</li> </ol>
E724	Up to 250 AP: not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "feature management" menu.</li> </ol>
E729	PFCS: demo expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>
E730	PFCS not active	<ol style="list-style-type: none"> <li>1 - This feature is configured but not active.</li> <li>2 - To activate it with UV, go to the "feature management" menu.</li> </ol>
E732	VWXML: demo expired	<ol style="list-style-type: none"> <li>1 - The demo period for this feature was 90 days.</li> <li>2 - This demo period is now elapsed.</li> <li>3 - To continue to use it you need to activate it with UV.</li> </ol>

Number	Description	Procedure
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.
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.

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

Number	Description	Procedure
W216	Current high	1- Maximum current exceeded. 2- Contact your Desoutter representative for support.
W267	Result transfer error	Result transfer error.
E007	Motor too hot	1- Tool is locked because the maximum motor temperature has been reached. 2- Tool will remain locked until the motor temperature comes back to its normal value.
E008	Tool angle fault	1- Problem detected with the tool angle sensor. 2- The tool needs maintenance.
E009	Tool invalid parameters	1- Check the tool compatibility. 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 pack is discharged. The tool cannot tighten. 2- Recharge the battery pack.
E031	Battery error	1- Abnormal battery voltage. The tool cannot tighten. 2- Recharge the battery pack. If the problem occurs again, replace the battery pack.
E032	Tool display error	1- Board display malfunction. 2- Contact your Desoutter representative for support.
E034	Tool memory error	1- The tool memory does not work properly. 2- Contact your Desoutter representative for support.
E035	Tool memory locked	1- The tool memory is locked to protect old data from rewriting. 2- Connect the tool to the computer via eDOCK to retrieve old data.
E037	Tool trigger error	1- The tool trigger does not work properly. 2- Check and clean the trigger. If the problem occurs again, contact your Desoutter representative for support.
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.

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Number	Description	Procedure
E228	Drive error	1- Software failure. 2- Restart the system. 3- If the problem occurs again, contact your Desoutter representative for support.

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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.

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