

Cordless Pistol Drill

Product Instructions

Valid from Serial No. 20B00000 to 99Z99999

Model**XPBM-6000****XPBM-6000-P****XPBMC-6000****XPBMC-6000-P****Part number****6151762310****6151763440****6151762510****6151763460**

Download the latest version of this document at
http://www.desouttertools.com/info/6159929910_EN

**⚠ WARNING**

To reduce risk of injury, everyone using, installing, repairing, maintaining, changing accessories on, or working near this tool **MUST** read and understand these instructions before performing any such task.

DO NOT DISCARD - GIVE TO USER

Table of Contents

Product Information	4
General Information.....	4
Warranty.....	4
Website	4
Information about spare parts	4
Dimensions	4
Technical Data	5
CAD files	7
Overview	7
General overview	7
Product Description.....	7
Technical data.....	8
Accessories.....	9
Installation.....	11
Inserting the Battery Pack	11
Connecting the Tool to XPB Config.....	11
Operation.....	12
Configuration Instructions.....	12
Getting the Tool Information.....	12
Managing White Light Intensity	12
Configuring White Screen LEDs	12
Managing the Orientation of the Screen	12
Managing the Modification of Data Units	12
Preventing the Start When the Battery Pack Level is Too Low.....	13
Locking the Tool When Counter is Reached.....	13
Show / Hide Cutting Tool Counter.....	13
Information about Quick Release Head	13
Managing the Counter of the Cutting Tool	14
Setting Up the Drilling Cycle	14
Setting Up the Drilling Cycle	15
Setting Up the Maximum Torque on Drilling Cycle	15
Setting Up the Tightening Cycle.....	16
Setting Up the Multiple Pset Heads	17
Setting Up the Maintenance Date On Head.....	17
Setting Up the Curve Recording	17
Fetching Up the Curve Data.....	17
Operating Instructions	18
Removing and Installing the Head	18
Mounting Information	19
How to Use the Tool.....	21
Waking up the tool	23
Icons and Buttons	23
Additional icons and buttons	23
Reporting LED's	23

Service.....	25
Maintenance Instructions	25
Read Before Maintenance	25
Heavy duty	25
Recommendations	25
Maintenance frequency.....	25
Calibration of the Tool	25
Calibration of the Heads (for tightening)	25
Upgrading tool firmware	26
Updating Tool Paramaters	26
Updating Head Paramaters.....	26
Performing Motor Align	26
Troubleshooting	27
Mechanical Troubleshooting	27
List of user infos related to the system.....	27
Software Troubleshooting	27

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+1 months after dispatch from Desoutter's Distribution Center.
- Normal wear and tear on parts is not included within the warranty.
 - Normal wear and tear is that which requires a part change or other adjustment/overhaul during standard tools maintenance typical for that period (expressed in time, operation hours or otherwise).
- The product warranty relies on the correct use, maintenance, and repair of the tool and its component parts.
- Damage to parts that occurs as a result of inadequate maintenance or performed by parties other than Desoutter or their Certified Service Partners during the warranty period is not covered by the warranty.
- To avoid damage or destruction of tool parts, service the tool according to the recommended maintenance schedules and follow the correct instructions.
- Warranty repairs are only performed in Desoutter workshops or by Certified Service Partners.

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

For electrical motors:

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

Website

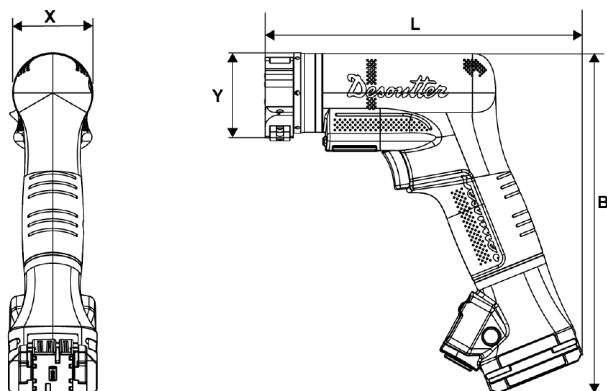
Information concerning our Products, Accessories, Spare Parts, and Published Matters can be found on the Desoutter website.

Please visit: www.desouttertools.com.

Information about spare parts

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

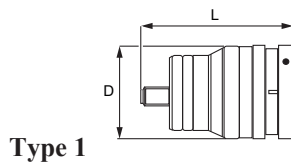
Dimensions



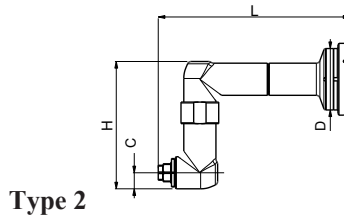
Model	L (mm)	Y (mm)	B (mm)	X (mm)
XPBM-6000	174	Ø 47	198	47

Technical Data

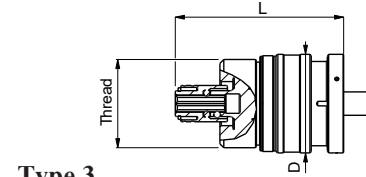
Schemas



Type 1



Type 2



Type 3

Metric System

Designation	P/N	Type	L	D	H	W	Capac- ity	Output	Max Speed	Pset No.
			(mm)	(mm)	(mm)	(kg)	(mm)		(rpm)	
HDR-10000-1	6154011320	1	27.9	32.5	NA	0.1	NA	3/8-24 UNF	10000	1
HDR-6000-1	6154011330	1	19.8	32.5	NA	0.06	NA	3/8-24 UNF	6000	1
HDR-3000-1	6154011340	1	43.9	38	NA	0.18	NA	3/8-24 UNF	3000	1
HDR-2000-1	6154011350	1	43.9	38	NA	0.18	NA	3/8-24 UNF	2000	1
HDR-1000-1	6154011360	1	43.9	38	NA	0.18	NA	3/8-24 UNF	1000	1
HDR-600-1	6154011370	1	68.2	38	NA	0.28	NA	3/8-24 UNF	600	1
HDR-400-1	6154011380	1	68.2	38	NA	0.28	NA	3/8-24 UNF	400	1
HDR-10000-6	6154011390	1	27.9	32.5	NA	0.1	NA	3/8-24 UNF	10000	6
HDR-6000-6	6154011400	1	19.8	32.5	NA	0.06	NA	3/8-24 UNF	6000	6
HDR-3000-6	6154011410	1	43.9	38	NA	0.18	NA	3/8-24 UNF	3000	6
HDR-2000-6	6154011420	1	43.9	38	NA	0.18	NA	3/8-24 UNF	2000	6
HDR-1000-6	6154011430	1	43.9	38	NA	0.18	NA	3/8-24 UNF	1000	6
HDR-600-6	6154011440	1	68.2	38	NA	0.28	NA	3/8-24 UNF	600	6
HDR-400-6	6154011450	1	68.2	38	NA	0.28	NA	3/8-24 UNF	400	6
HDR-6000-360-T6-1	6154011460	2	114.7	32.5	73.19	0.33	6.4	Type A	6000	1
HDR-3000-360-T6-1	6154011480	2	186	38	73.19	0.6	6.4	Type A	3000	1
HDR-6000-360-T6-6	6154011500	2	114.7	32.5	73.19	0.33	6.4	Type A	6000	6
HDR-3000-360-T6-6	6154011520	2	186	38	73.19	0.6	6.4	Type A	3000	6
HDR-6000-360-T5-1	6154011470	2	101.4	32.5	66.5	0.26	5	Type B	6000	1
HDR-3000-360-T5-1	6154011490	2	172.7	38	66.5	0.53	5	Type B	3000	1
HDR-6000-360-T5-6	6154011510	2	101.4	32.5	66.5	0.26	5	Type B	6000	6
HDR-3000-360-T5-6	6154011530	2	172.7	38	66.5	0.53	5	Type B	3000	6

Metric System

Designation	P/N	Type	Thread	Output	L	D	W	Max Speed	Max Torque	PSet No
					(mm)	(mm)	(kg)	(rpm)	(Nm)	
HTH3,1-1500-4Q-M34-1	6154011560	3	M34x1,5		64.90	38	0.18	1500	3.1	1
HTH5,9-1036-4Q-M34-1	6154011580	3	M34x1,5		64.90	38	0.18	1036	5.9	1
HTH8,1-725-4Q-M34-1	6154011590	3	M34x1,5		89.20	38	0.28	725	8.1	1
HTH13,5-437-4Q-M34-1	6154011600	3	M34x1,5		89.20	38	0.28	437	13.5	1
HTH3,1-1500-4Q-M20-1	6154011710	3	M20x1 - L.H.		64.90	38	0.18	1500	3.1	1
HTH5,9-1036-4Q-M20-1	6154011730	3	M20x1 - L.H.		64.90	38	0.18	1036	5.9	1
HTH8,1-725-4Q-M20-1	6154011740	3	M20x1 - L.H.		89.20	38	0.28	725	8.1	1
HTH13,5-437-4Q-M20-1	6154011750	3	M20x1 - L.H.		89.20	38	0.28	437	13.5	1

Product Information

Designation	P/N	Type	Thread		L	D	W	Max Speed	Max Torque	PSet No
			Output							
HTH3,1-1500-4Q-M34-6	6154011630	3	M34x1,5		64.90	38	0.18	1500	3.1	6
HTH5,9-1036-4Q-M34-6	6154011650	3	M34x1,5		64.90	38	0.18	1036	5.9	6
HTH8,1-725-4Q-M34-6	6154011660	3	M34x1,5		89.20	38	0.28	725	8.1	6
HTH13,5-437-4Q-M34-6	6154011670	3	M34x1,5		89.20	38	0.28	437	13.5	6
HTH3,1-1500-4Q-M20-6	6154011780	3	M20x1 - L.H.		64.90	38	0.18	1500	3.1	6
HTH5,9-1036-4Q-M20-6	6154011800	3	M20x1 - L.H.		64.90	38	0.18	1036	5.9	6
HTH8,1-725-4Q-M20-6	6154011810	3	M20x1 - L.H.		89.20	38	0.28	725	8.1	6
HTH13,5-437-4Q-M20-6	6154011820	3	M20x1 - L.H.		89.20	38	0.28	437	13.5	6

Imperial System

Designation	P/N	Type	L	D	H	W	Capac- ity	Output	Max Speed	Pset No.
			(Inch)	(Inch)	(Inch)	(lb)	(Inch)		(rpm)	
HDR-10000-1	6154011320	1	1.10	1.28	NA	0.22	NA	3/8-24 UNF	10000	1
HDR-6000-1	6154011330	1	0.78	1.28	NA	0.14	NA	3/8-24 UNF	6000	1
HDR-3000-1	6154011340	1	1.73	1.50	NA	0.39	NA	3/8-24 UNF	3000	1
HDR-2000-1	6154011350	1	1.73	1.50	NA	0.39	NA	3/8-24 UNF	2000	1
HDR-1000-1	6154011360	1	1.73	1.50	NA	0.39	NA	3/8-24 UNF	1000	1
HDR-600-1	6154011370	1	2.69	1.50	NA	0.61	NA	3/8-24 UNF	600	1
HDR-400-1	6154011380	1	2.69	1.50	NA	0.61	NA	3/8-24 UNF	400	1
HDR-10000-6	6154011390	1	1.10	1.28	NA	0.22	NA	3/8-24 UNF	10000	6
HDR-6000-6	6154011400	1	0.78	1.28	NA	0.14	NA	3/8-24 UNF	6000	6
HDR-3000-6	6154011410	1	1.73	1.50	NA	0.39	NA	3/8-24 UNF	3000	6
HDR-2000-6	6154011420	1	1.73	1.50	0,39	0.39	NA	3/8-24 UNF	2000	6
HDR-1000-6	6154011430	1	1.73	1.50	0,39	0.39	NA	3/8-24 UNF	1000	6
HDR-600-6	6154011440	1	2.69	1.50	0,39	0.61	NA	3/8-24 UNF	600	6
HDR-400-6	6154011450	1	2.69	1.50	0,39	0.61	NA	3/8-24 UNF	400	6
HDR-6000-360-T6-1	6154011460	2	4.52	1.28	2.88	0.72	6.4	Type A	6000	1
HDR-3000-360-T6-1	6154011480	2	7.33	1.50	2.88	1.32	6.4	Type A	3000	1
HDR-6000-360-T6-6	6154011500	2	4.52	1.28	2.88	0.72	6.4	Type A	6000	6
HDR-3000-360-T6-6	6154011520	2	7.33	1.50	2.88	1.32	6.4	Type A	3000	6
HDR-6000-360-T5-1	6154011470	2	3.99	1.28	2.62	0.57	5	Type B	6000	1
HDR-3000-360-T5-1	6154011490	2	6.80	1.50	2.62	1.17	5	Type B	3000	1
HDR-6000-360-T5-6	6154011510	2	3.99	1.28	2.62	0.57	5	Type B	6000	6
HDR-3000-360-T5-6	6154011530	2	6.80	1.50	2.62	1.17	5	Type B	3000	6

Imperial System

Designation	P/N	Type	Thread		L	D	W	Max Speed	Max Torque	PSet No
			Output							
					(Inch)	(Inch)	(lb)	(rpm)	(in.lb)	
HTH3,1-1500-4Q-M34-1	6154011560	3	M34x1,5		2.56	1.5	0.39	1500	27.2	1
HTH5,9-1036-4Q-M34-1	6154011580	3	M34x1,5		2.56	1.5	0.39	1036	52.4	1
HTH8,1-725-4Q-M34-1	6154011590	3	M34x1,5		3.51	1.5	0.61	725	71.7	1
HTH13,5-437-4Q-M34-1	6154011600	3	M34x1,5		3.51	1.5	0.61	437	119.2	1
HTH3,1-1500-4Q-M20-1	6154011710	3	M20x1 - L.H.		2.56	1.5	0.39	1500	27.2	1
HTH5,9-1036-4Q-M20-1	6154011730	3	M20x1 - L.H.		2.56	1.5	0.39	1036	52.4	1
HTH8,1-725-4Q-M20-1	6154011740	3	M20x1 - L.H.		3.51	1.5	0.61	725	71.7	1
HTH13,5-437-4Q-M20-1	6154011750	3	M20x1 - L.H.		3.51	1.5	0.61	437	119.2	1

Designation	P/N	Type	Thread				Max Speed	Max Torque	PSet No
			Output	L	D	W			
HTH3,1-1500-4Q-M34-6	6154011630	3	M34x1,5	2.56	1.5	0.39	1500	27.2	6
HTH5,9-1036-4Q-M34-6	6154011650	3	M34x1,5	2.56	1.5	0.39	1036	52.4	6
HTH8,1-725-4Q-M34-6	6154011660	3	M34x1,5	3.51	1.5	0.61	725	71.7	6
HTH13,5-437-4Q-M34-6	6154011670	3	M34x1,5	3.51	1.5	0.61	437	119.2	6
HTH3,1-1500-4Q-M20-6	6154011780	3	M20x1 - L.H.	2.56	1.5	0.39	1500	27.2	6
HTH5,9-1036-4Q-M20-6	6154011800	3	M20x1 - L.H.	2.56	1.5	0.39	1036	52.4	6
HTH8,1-725-4Q-M20-6	6154011810	3	M20x1 - L.H.	3.51	1.5	0.61	725	71.7	6
HTH13,5-437-4Q-M20-6	6154011820	3	M20x1 - L.H.	3.51	1.5	0.61	437	119.2	6

CAD files

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

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

Overview

General overview

XPBM tools are cordless pistol drills.

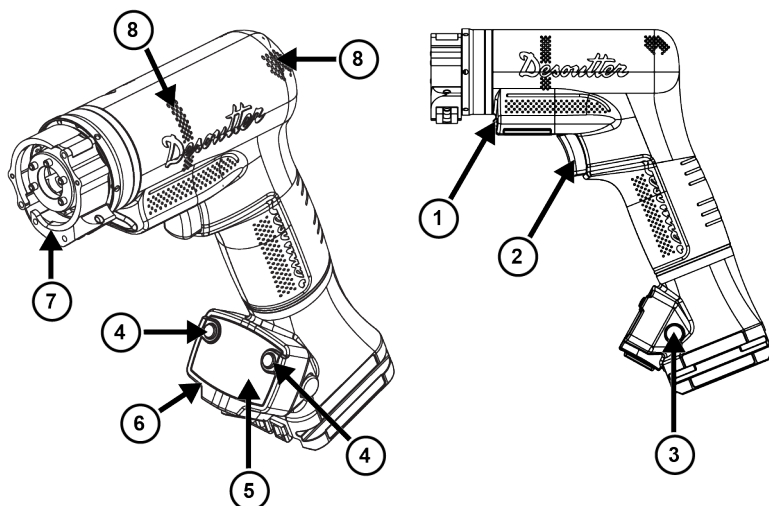
They are handheld by the operator and powered by a Desoutter battery pack.

Tools are equipped with a double-step trigger which allows to adjust the drilling speed to the material.

Tool settings are done with XPB Config.

At the end of the drilling cycle, the *Pulse mode* feature (enabled by default) allows to free the cutting tool from chips stuck in the drilling hole.

Product Description



1	LED (reporting + Light)
2	Double Step Trigger (Progressive trigger on XPBM-xxx-P)
3	Reverse Button (for tightening head) / Locking Button (for drilling head)
4	Validation Button
5	Bottom Screen
6	Bottom LED (reporting + light)
7	Quick Release Module
8	Cooling Holes (do not cover / to be free from dust)

Product Information

i XPBM-6000-P is installed with Progressive Trigger.

Technical data

Voltage (V)

18 V  or 36 V 

Power consumption

18 V: 310 W

36 V: 420 W

Output Drive

Model	Output Type	Trigger Type
XPBM-6000	Quick Release Output	Bi-Step
XPBMC-6000	Quick Release Output	Bi-Step
XPBM-6000-P	Quick Release Output	Progressive
XPBMC-6000-P	Quick Release Output	Progressive

Additional Accessories (To Be Ordered Separately):

XPBM must be used with Quick Release heads described in **Heads Safety Instruction P/N 6159929920**.

The way to install the head on the tool is described on its safety instruction.

Speed Range (rpm)

Model	Min (1)	Max (2)
XPBM-6000	630	6000
XPBMC-6000	630	6000
XPBM-6000-P	630	6000
XPBMC-6000-P	630	6000

For tool equipped with Bi-step trigger:

(1) default minimum speed for first-step trigger (Speed 1).

(2) default maximum speed for second-step trigger (Speed 2).

For tool equipped with progressive trigger (-P):

(1) default minimum speed (Min Speed).

(2) default maximum speed (Max Speed).

Weight

Model	Kg	lb
XPBM-6000	0.85	1.87
XPBMC-6000	0.85	1.87
XPBM-6000-P	0.85	1.87
XPBMC-6000-P	0.85	1.87

The weight is given without the battery pack and the quick release heads.

Part Number	Description	Kg	lb
6158132660	18 V Battery Pack	0.460	1.01
6158132670	36 V Battery Pack	0.770	1.70

Storage and use conditions

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

Accessories**Required Accessories**

Model	Part Number
Battery pack 18 V 2.5 Ah	6158132660
Battery pack 36 V 2.5 Ah	6158132670
Battery pack charger	6158132700

Optional Accessories

Type 1 Optional Accessories		Type 3 Optional Accessories	
Chuck - capacity 6.5 mm	2050552723	Monogram hex head	2050552723
Chuck - capacity 8 mm	2050530133	KIT FRONT NOSE HEX 12	6153988870
Chuck - capacity 10 mm	2050529543	KIT FRONT NOSE HEX 14	6153988880
Chuck guard	2050492753	DRIVER Ø9,5 ASSY	6153988920
Side handle	6153992650	DRIVER Ø10 ASSY	6153988930
Keyless chuck - capacity 8mm	473433	ELIT RUNNER NOSE COMPLETE	6153990560
Keyless chuck - capacity 10mm	473423	KIT FRONT NOSE HEX 20	6153991930
Keyless chuck - capacity 13mm	2050478193	KIT FRONT NOSE HEX 18	6153991940
Spacer dedicated to Keyless chuck	6154504365	SOCKET SW10	6158207320
		SOCKET SW9	6158207340
		SOCKET SW13	6158207370

Type 4 Optional Accessories for Maintenance

XPB Tooling	6154010780
Pin Wrench	2050533723

Type 2 accessories

Type A (standard)



Type B (compact)



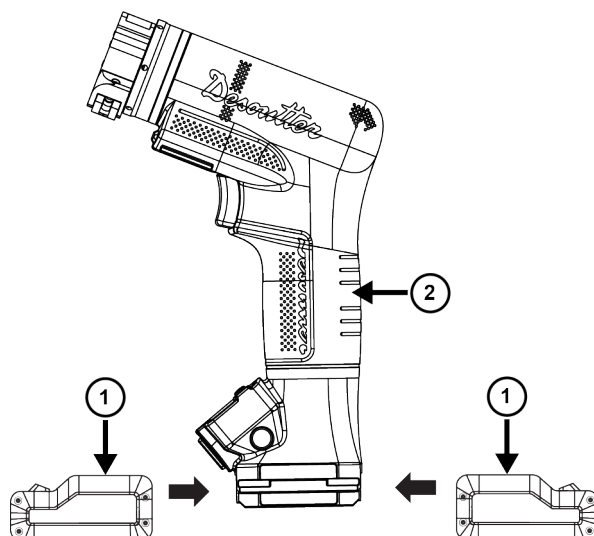
Capacity	P/N	Type	Capacity	P/N	Type	Capacity	P/N	Type
Ø 1.6 mm	18922	A	Ø 0.8 mm	2152	B	Ø 3.3 mm	2402	B
Ø 1.8 mm	18932	A	Ø 0.9 mm	2162	B	Ø 3.4 mm	2412	B

Product Information

Capacity	P/N	Type	Capacity	P/N	Type	Capacity	P/N	Type
Ø 2.0 mm	18942	A	Ø 1.0 mm	2172	B	Ø 3.5 mm	2422	B
Ø 2.2 mm	18952	A	Ø 1.1 mm	2182	B	Ø 3.6 mm	2432	B
Ø 2.4 mm	18962	A	Ø 1.2 mm	2192	B	Ø 3.7 mm	2442	B
Ø 2.6 mm	18972	A	Ø 1.3 mm	2202	B	Ø 3.8 mm	2452	B
Ø 2.8 mm	18982	A	Ø 1.4 mm	2212	B	Ø 3.9 mm	2462	B
Ø 3.0 mm	18992	A	Ø 1.5 mm	2222	B	Ø 4.0 mm	2472	B
Ø 3.2 mm	19002	A	Ø 1.6 mm	2232	B	Ø 4.1 mm	2482	B
Ø 3.4 mm	19022	A	Ø 1.7 mm	2242	B	Ø 4.2 mm	2492	B
Ø 3.6 mm	19032	A	Ø 1.8 mm	2252	B	Ø 4.3 mm	2502	B
Ø 3.8 mm	19042	A	Ø 1.9 mm	2262	B	Ø 4.4 mm	2512	B
Ø 4.0 mm	19052	A	Ø 2.0 mm	2272	B	Ø 4.5 mm	2522	B
Ø 4.2 mm	19062	A	Ø 2.1 mm	2282	B	Ø 4.6 mm	2532	B
Ø 4.4 mm	19072	A	Ø 2.2 mm	2292	B	Ø 4.7 mm	2542	B
Ø 4.6 mm	19082	A	Ø 2.3 mm	2302	B	Ø 4.8 mm	2552	B
Ø 4.8 mm	19092	A	Ø 2.4 mm	2312	B	Ø 4.9 mm	2562	B
Ø 5.0 mm	19102	A	Ø 2.5 mm	2322	B	Ø 5.0 mm	2572	B
Ø 5.2 mm	19122	A	Ø 2.6 mm	2332	B	Ø 1/16"	91442	B
Ø 5.4 mm	19132	A	Ø 2.7 mm	2342	B	Ø 3/32"	91452	B
Ø 5.6 mm	19142	A	Ø 2.8 mm	2352	B	Ø 1/8"	91462	B
Ø 5.8 mm	19152	A	Ø 2.9 mm	2362	B	Ø 5/32"	91472	B
Ø 6.0 mm	19162	A	Ø 3.0 mm	2372	B	Ø 11/64"	108172	B
Ø 6.2 mm	19172	A	Ø 3.1 mm	2382	B	Ø 3/16"	91492	B
Ø 6.4 mm	19182	A	Ø 3.2 mm	2392	B			

Installation

Inserting the Battery Pack



Insert the battery pack (1) from front or behind the tool (2) until a locking sound can be clearly heard.

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

When the tool is powered on, tool LEDs blink and screen is powered.

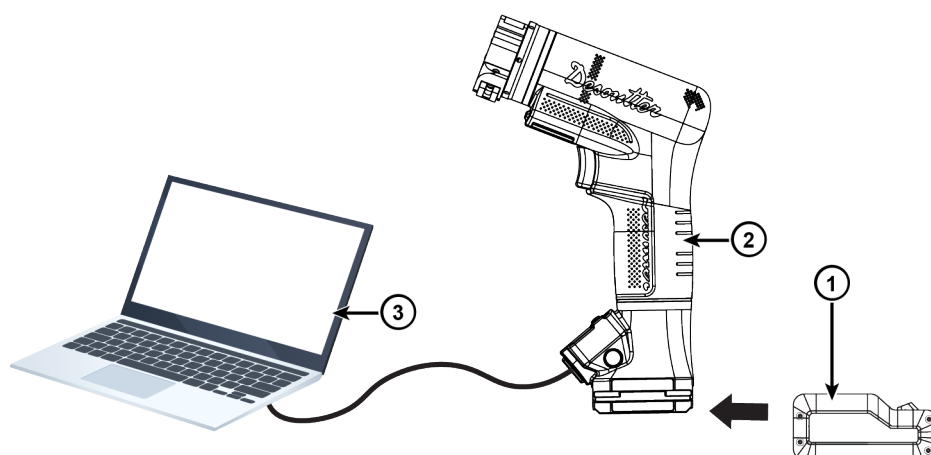
If no head is assembled on the tool, a logo with a stripped head is indicated on the display. If head is correctly assembled/configured, information linked to Pset head Display is repeated - 'on the Display' can be removed (refer to XPBM Product Information to configure XPBM Pset).

NOTICE Usage recommendations for battery packs

To ensure a longer service life of the battery pack.

- ▶ Remove battery pack when the tool is not used.
- ▶ Do not leave the battery pack on the charger when the charger power supply is off.

Connecting the Tool to XPB Config



1. Plug a battery pack to the tool.
2. Connect mini USB port of the tool (located under the screen) to the USB port of the computer.
3. Launch XPB Config from the computer desktop.
4. Click Connect to communicate with the tool.
5. When the communication is successful, a green tick is displayed.
6. Click  to update the tool.

Operation

Configuration Instructions

Getting the Tool Information

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. The following information is displayed:
 - Tool serial number
 - Tool Model
 - Tool param version
 - Firmware version
 - Date and time
 - Battery level
 - Number of drilling cycles executed (Counter) since the manufacturing date.
4. Customize the following information:

Tool user serial number	Up to 16 characters
Tool user description	Up to 32 characters

5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Managing White Light Intensity

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. Go to the box **White LED level**.
4. Select the intensity of the white LED in percentage.
5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Configuring White Screen LEDs

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. Go to the box **White screen LEDs**.
4. Select **ON** or **OFF** according to your need
5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Managing the Orientation of the Screen

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. Go to the box **Screen Orientation**.
4. Select **Top** or **Bottom Orientation**
5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Managing the Modification of Data Units

1. Connect the tool to XPB Config.

2. Go to the tab *Tool configuration*.
3. Go to the tab **Torque Units** or **Temperature Units**.
4. Select the unit.
5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Preventing the Start When the Battery Pack Level is Too Low

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. Go to the box **Maintenance**.
4. Select the minimum load level (0% by default) at which the tool will not start.
5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Locking the Tool When Counter is Reached

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. Go to the box **Maintenance**.
4. In the box counter limit, enter the number of drilling cycles to reach (from 0 to 1,000,000).
5. Tick *Lock tool*.
6. Click  to update the tool.
7. Unplug and plug the battery pack to validate new settings in the tool.

Show / Hide Cutting Tool Counter

1. Connect the tool to XPB Config.
2. Go to the tab *Tool configuration*.
3. Go to the tab *Cutting tool counter display*.
4. Select **ON** or **OFF** according to your need.
5. Click  to update the tool.
6. Unplug and plug the battery pack to validate new settings in the tool.

Information about Quick Release Head

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets configuration*.
3. Click  to read the tool.
4. The following information is displayed on *Information* tab.
 - Quick Release Head Serial Number
 - Head Type
 - Head Param Version
 - Head Version
 - Head Ratio
5. Customize the following information:

Tool user serial number	Up to 16 characters
Tool user description	Up to 32 characters
6. Click  to update the tool.

7. Unplug and plug the battery pack to validate new settings in the tool.

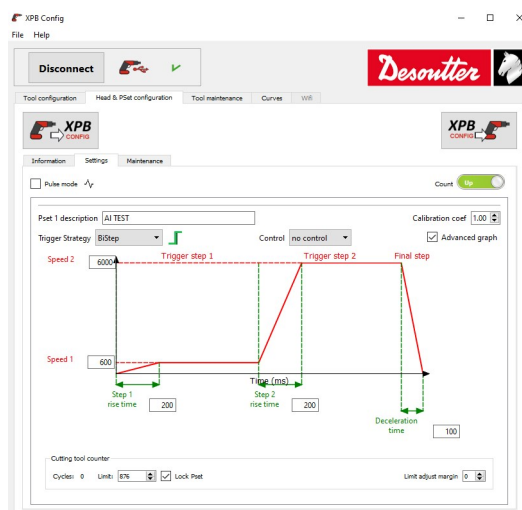
Managing the Counter of the Cutting Tool

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets Configuration*.
3. Go to the tab *Settings*.
4. The counter of the number of drilling done with the current cutting tool is displayed.
5. Reset this counter by clicking *Reset counter*.
6. In the box cycle counter limit, enter the number of drilling cycles (from 0 to 1,000,000) at which the tool will be stopped.
7. In case, you want to lock the tool as soon as the counter is reached, tick Lock Pset (in that case, manual operation to reset the counter will be necessary to unlock the Pset).
8. Click  to update the tool.

Setting Up the Drilling Cycle

i Tools are equipped with a double-step trigger which allows to adjust the drilling speed to the material.

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets configuration*.
3. Click  to read the tool.
4. Enter the *Pset Description*.
5. Click on *Advanced Graph* tab to have access to all parameters.
6. Precisely define the drilling cycle.



i There are 4 steps in a drilling cycle. Speeds by default are shown in *Technical data*.

Speed 1

Enter the required tool speed related to first step of trigger.

Speed 2

Enter the required tool speed related to second step of trigger.

Step 1 rise time

Enter the rise time to reach speed 1 (min. 100 ms / max. 1500 ms / 200 ms by default).

Step 2 rise time

Enter the rise time to reach speed 2 (min. 100 ms / max. 1500 ms / 200 ms by default).

Deceleration time

Enter the time needed to stop the tool after trigger released (min. 100 ms / max. 300 ms / 200 ms by default).



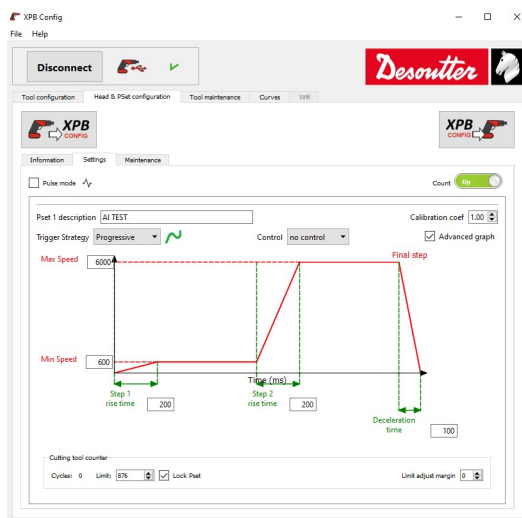
Click to update the tool.

By default the Pulse Mode is disabled. At the end of the drilling cycle, this feature allows to free the cutting tool from chips stuck in the drilling hole.

Setting Up the Drilling Cycle

i Tools (-P) fitted with a progressive throttle action allow a low speed with a small throttle opening which is ideal when starting a drilling operation.

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets configuration*.
3. Click to read the tool.
4. Enter the *Pset Description*.
5. Click on *Advanced Graph* tab to have access to all parameters.
6. Select trigger behavior from trigger strategy.



i There are 4 steps in a drilling cycle. Speeds by default are shown in *Technical data*.

Min Speed

Enter the required min tool speed.

Max Speed

Enter the required max tool speed.

Step 1 rise time

Enter the rise time to reach Min speed (min. 100 ms / max. 1500 ms / 200 ms by default).

Step 2 rise time

Enter the rise time to reach Max Speed (min. 100 ms / max. 1500 ms / 200 ms by default).

Deceleration time

Enter the time needed to stop the tool after trigger released (min. 100 ms / max. 300 ms / 200 ms by default).

By default the Pulse Mode is disabled.

At the end of the drilling cycle, this feature allows to free the cutting tool from chips stuck in the drilling hole.



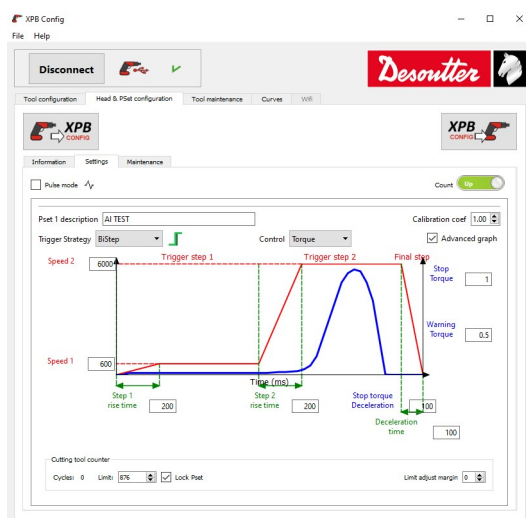
Click to update the tool.

Setting Up the Maximum Torque on Drilling Cycle

i Tools are equipped with a double-step trigger which allows to adjust the drilling speed to the material.

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets configuration*.

- Click  to read the tool.
- Refer to subchapter *Setting Up the Drilling Cycle [Page 14]* for general drilling parameters.
- Select Torque on Control tab (information linked to Torque Control appears on the graph).

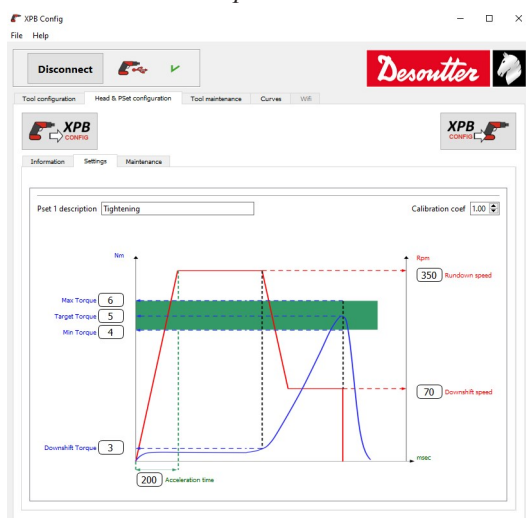


- Enter the below 3 values to adjust the tool behaviour:
 - Warning torque: This is the value above which the green and red LEDs will light up to inform the operator that the torque value seen is near the limit.
 - Abort torque: This is the value above which the tool will be stopped and as a consequence it will send a NOK result (Red LED ON).
 - Stop torque deceleration: This step controls the decrease in speed at the end of the drilling cycle, when the max torque is reached.

Remove: Enter the rise time(min. 100 ms / max. 300 ms / 100 ms by default).
- Click  to update the tool.

Setting Up the Tightening Cycle

- Connect the tool to XPB Config.
- Go to the tab *Head and Psets configuration*.
- Click  to read the tool.
- Enter the *Pset Description*.



- Set target torque related to your application.
- Set *Min Torque* and *Max Torque* related to the limit of accepted values.
- Set the *Downshift torque* (Torque at which tool will decrease the speed from *Run speed* to *Downshift speed*).
- Refer to Calibration chapter for information related to Calibration coef

10.  Click  to update the tool.

Setting Up the Multiple Pset Heads

i Available only on 6 PSet heads.

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets configuration*.
3. Go to the tab *Settings*.
4. Click on the tile of each Pset to set parameter of each Pset (refer to the previous cycle to know how to set up drilling or tightening cycle).
5. Tick on Pset to enable / disable it.
6. Enter the *Pset Description*.

Setting Up the Maintenance Date On Head

1. Connect the tool to XPB Config.
2. Go to the tab *Head and Psets configuration*.
3. Go to the tab *Settings*.
4. Click on the tile of each Pset to set parameter of each Psets (refer to the previous chapter to know how to set up drilling or tightening cycle).
5. Tick on Pset to enable / disable it.
6. Enter the *Pset Description*.

Total number of cycles performed by the Heads (including all Pset in case of 6 Pset Heads) is displayed.

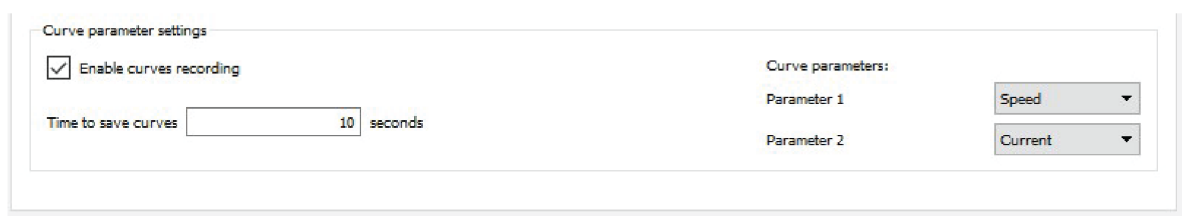
You can choose the number of cycles (from 0 to 1,000,000) at which the Head needs to be maintained (by entering the chosen number in Maximum count tab) or the date when next maintenance needs to be done (by entering the date in the Head maintenance due date tab).

Lock XPB head if required when the counter is reached.

7.  Click  to update the tool.

Setting Up the Curve Recording

1. Connect the tool to XPB Config.
 2. Go to the tab *Tool configuration*.
 3. Tick on *Enable Curves Recording*.
 4. Enter the time to save curves
- i** Record in backward from motor stop (set ms).
5. Define the Curve Parameters.

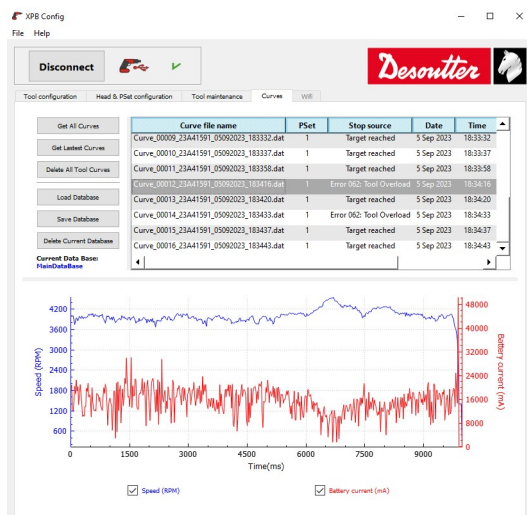


- i** Parameters to be defined among (Torque, Speed, Angle and Current).
6.  Click  to update the tool.

Fetching Up the Curve Data

1. Connect the tool to XPB Config.

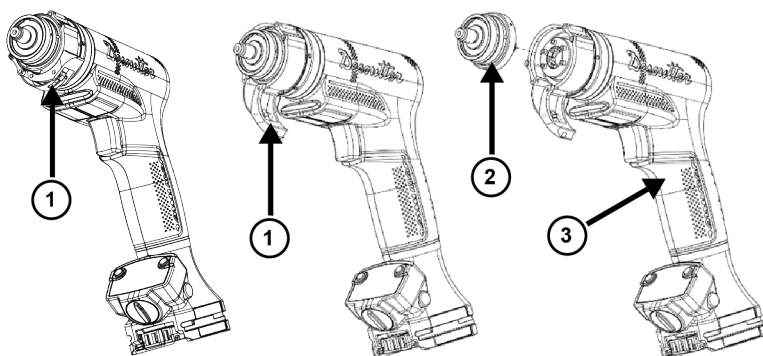
2. Go to the tab *Curves*.
3. The following information is displayed.
 - Get All Curves (access to all curves registered by the tool).
 - Get Last Curves (access to last curve registered by the tool).
 - Delete All Tool Curves (to delete all curves registered by the tool).
 - Get Load Database (to be able to load curves registered locally on your computer and can be handled by XPB Config).
 - Get Save Database (to download selected curves). / Possibility to export curves in CSV (right click on curves then select CSV).



Operating Instructions

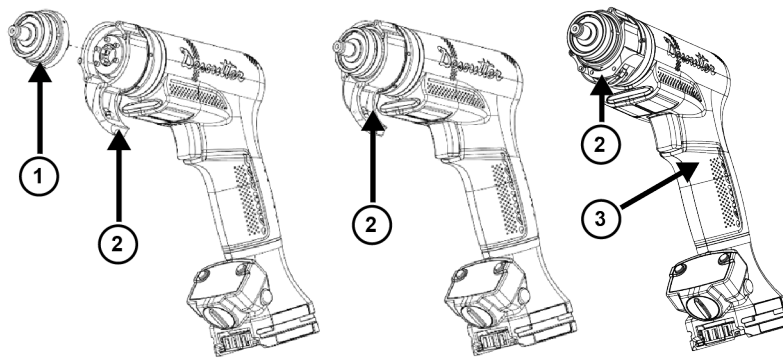
Removing and Installing the Head

Removing the Head From the Tool



1. Unlock quick release system (1) as shown in the figure.
2. Pull out Head from the tool (3).
3. Lock the quick release system (1).

Installing the Head to the Tool



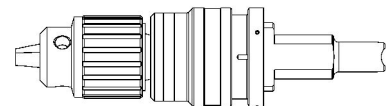
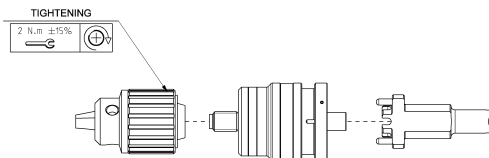
1. Unlock quick release system (2).
 - ⓘ • Make sure the clamping position of the Head is correct.
 - Wrong installation may damage the Head and tool (3).
2. Install the Head (1) to the tool (3).
3. Lock the quick release system (2).
 - ⓘ Make sure the quick release system is locked correctly before using the tool.

Mounting Information

- ⓘ By default, the Head are delivered with a PSet on which speed and torque are set to minimum value. Refer to XPBM Product Information to see how to change the Pset parameters.

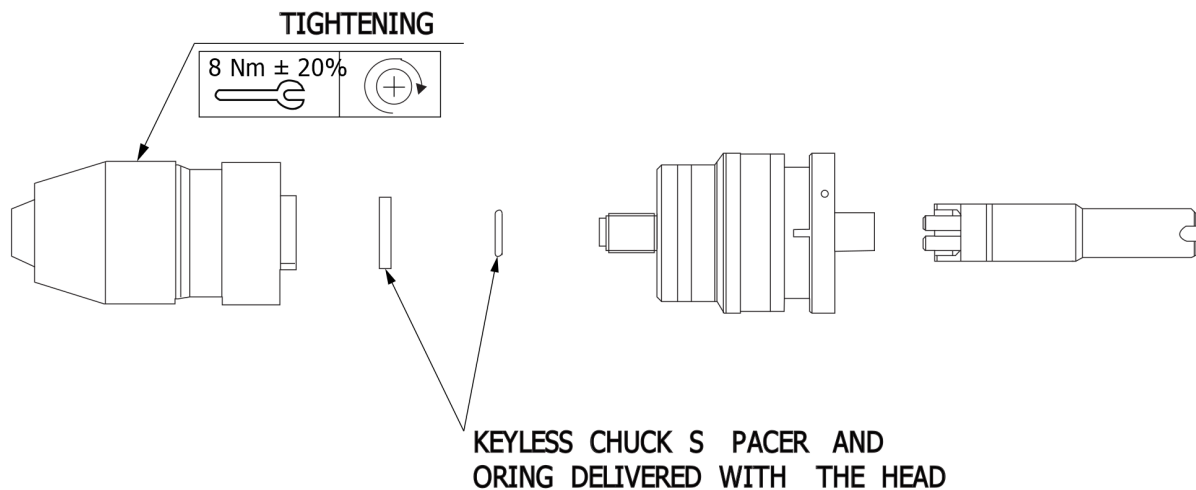
Mounting the Chuck (See Type 4)

- ⓘ Use the XPB tooling part number **6154010780** to lock the output shaft.



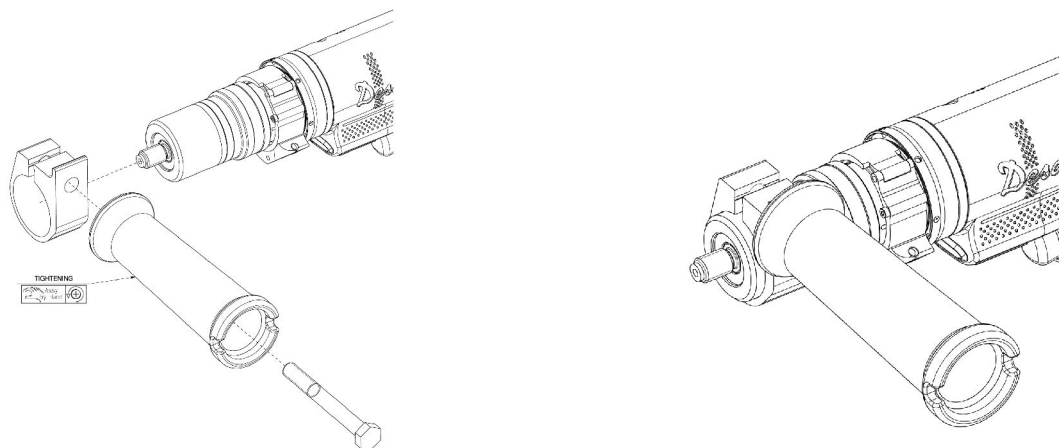
1. Tighten the chuck with straight Head (see type 1) with XPB tooling.
2. Apply torque of 8 Nm.

i Assembly for Keyless chuck only:



Mounting the Side Angle

i This assembly must be done manually.

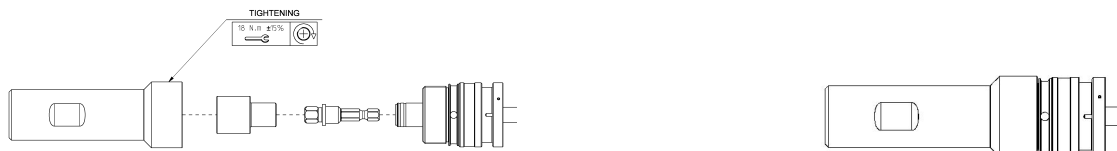


1. Assemble the side handle.

Mounting the Tightening Heads Accessories (Type 5)

Refer to Safety Instructions supplied with the accessories 6159921140.

For more information about specific applications, please contact the Desoutter representative.



1. Tighten the Tightening Head Accessories with Tightening Head (see type 3) with XPB tooling.
2. Apply torque of 18 Nm.

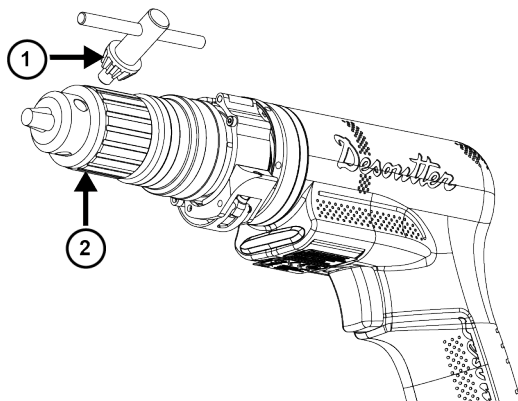
i A tolerance of $\pm 10\%$ is allowed.

Refer metric and imperial system tables for more details on dimensions.

How to Use the Tool

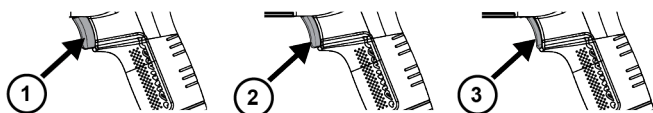
⚠ WARNING Do not start the tool before ensuring that the drill head is correctly assembled to the drive unit. An incorrectly assembled drill head may come loose with high speed and cause bodily injury and/or property damage.

For Drilling Application:



1. Fit the tool with a suitable chuck (2).
2. Insert the cutting tool into the chuck (2).
3. Use the chuck key (1) to tighten the cutting tool on the chuck.
4. Repeat this operation three times (each 120°).
5. Refer to optional accessories section on Product Instructions (6159929920) for suitable references of chuck (2) and chuck key (1).
6. Hold the tool firmly by means of the handle and apply to the part to be cut. The white front light illuminates the working area.

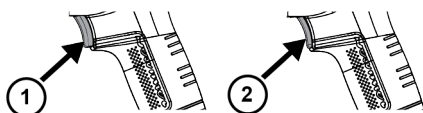
i Tools are equipped with a Bi-step trigger which allows to adjust the drilling speed of the material.



1	Trigger OFF
2	First-step trigger
3	Second-step trigger

Press the trigger halfway (first-step trigger) to drill at *Speed 1* and press it fully (second-step trigger) to drill at *Speed 2*.

i The tools (-P) are fitted with a progressive throttle action, this allows a low speed with a small throttle opening which is ideal when commencing a drilling operation. A linear speed variation will be applied on the tool according to trigger position.



1	Trigger OFF
2	Progressive trigger

Operation

When Pulse Mode is activated, If the cutting tool is blocked during the cycle, the tool starts automatically a disengagement cycle to free the cutting tool (refer to XPBM Product Information 6159929910, for more information related to Pset configuration).

At the end of the drilling cycle, the tool may generate some impact to free the cutting tool from chips stuck in the drilling hole.

- ① If the cutting tool is blocked during the cycle, the tool automatically starts a disengagement cycle to free the cutting tool.

For Tightening Application

1. Fit the tool with a suitable socket.
2. Select the appropriate program on the system.
3. Hold the tool by means of the handle and apply to the fastener to be tightened.

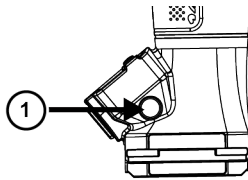
WARNING Risk Of Injury

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

- ▶ Make sure that the tool is in perfect working order and the system is programmed correctly.
- ▶ The white front light illuminates the area to be tightened. Press the trigger to start the tool.

- ① Trigger type (Bi-step or Progressive) have no impact on tool speed for tightening applications.

How to Reverse The Rotation

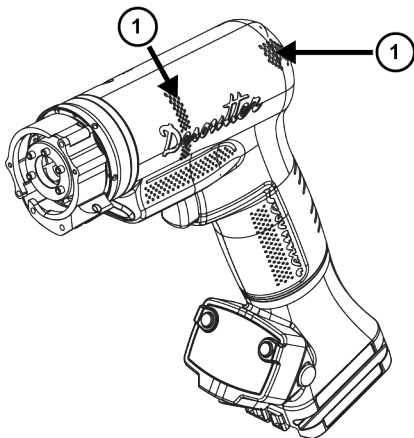


1. Press reverse button (1).
2. Red and green LEDs are blinking alternatively.
3. Press this button (1), apply the tool to the fastener and press the trigger.

- ① Trigger type (Bi-step or Progressive) have no impact on tool speed for tightening applications.

Cooling Holes Must be Open and Clean

WARNING Do Not Cover Cooling Holes.



Covering cooling holes or inserting any foreign material through cooling holes (1) will cause premature damage on the tool or cause temperature issue to the tool (E7 : motor temperature, refer to XPBM Product Information 6159929910 for more information).

- ▶ Keep the cooling holes clean.
- ▶ Avoid covering cooling holes when the tool is in operation.

Waking up the tool

The tool switches to Standby mode automatically after 30 minutes of inactivity.

Press the trigger.

Tool goes to Deep sleep mode after 1 hour of inactivity when battery pack is under low level.

Press the trigger.

Unplug the battery pack, wait for a few seconds, then plug the battery pack.

Icons and Buttons



The battery pack is full.



The battery pack is low.

Additional icons and buttons



Results and curves are stored in the memory board.
They are sent to the system regularly.



Blinking
The synchronization between the tool and the system is in progress.



Steady
The tool is connected to the system.



Steady
The tool is not connected to the system.
Check the cable between the system and the access point.
Check the communication settings.



Bi-step trigger



Progressive trigger



Pulse Mode is activated



Count up for cutting tool counter



Count down for cutting tool counter



No head assembled on the tool



Exit tool menu



Head locked



Tool needs check or repair



Tool synchronisation

Reporting LED's

LED	Description
White	During Cycle / Gyro
Display + Green LED	End of Cycle (OK)
Display + Red LED	End of Cycle (NOK)
Red & Green (Alternate Blink)	Reverse activated (Tightening).
Green & Red LED	During drilling cycle if torque control is activated and measured torque is between warning and stop torque.
Red LED	During drilling cycle if torque control is activated and measured torque is above stop torque.

Operation

LED	Description
Flashing Green/Red/White LEDs	Bootloader mode - During firmware update.

Service

Maintenance Instructions

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.

Heavy duty

Heavy duty use can require more frequent overhaul and Preventive Maintenance intervals. Please contact your local Desoutter Service team to get a customized maintenance plan.

Recommendations

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

Maintenance frequency

500,000 drilling cycles or at least once every 2 years.

This maintenance must at least concern the disassembly and de-greasing/cleaning of the gearbox and inspection of wear parts. Replace any worn parts as necessary, re-greasing (refer to service link for grease reference and quantity) and reassembly (refer to Service Link for glue (if any) and tightening torques).

Calibration of the Tool

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

This function is set in the "Tool configuration" menu.

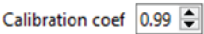
1. Assemble calibration head (P/N 6154013230) on the tool. Dedicated parameters linked to calibration are already set up on the head.
2. Run 5 tightening cycles on calibration bench.
3. Register tightening value from the tool and from the calibration bench (recommended to use Joint simulator (DJS) + Static transducer (PST) + Delta-xD).
4. Use the calibration calculate file to define calibration coefficient.
5. Connect the tool to XPB Configuration.
6. Go to the tab Tool Configuration.
7. Fill-in calibration coefficient in Tool Section.
8. Press OK to save your data.
9. Click  to update the tool.

Calibration of the Heads (for tightening)

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

This function is set in the "Maintenance" menu.



1. It is mandatory to use a calibrated tool for the calibration of the Head (refer to “Calibration of the tool”).
2. Assemble head to be calibrated on the tool, with the required Pset (It is recommended to set a Downshift speed as low as possible to improve tool capability).
3. Run 5 tightening cycles on calibration bench (recommended to use Joint simulator (DJS) + Static transducer (PST) + Delta-xD).
4. Register tightening value from the tool and the calibration bench.
5. Use the calibration calculate file to define calibration coefficient.
6. Connect the tool to XPB configuration.
7. Go to the tab Head and Psets configuration, and then to the tab Settings.
8. Fill-in calibration coefficient in Head Section. 
9. Operation to be done for each Pset (on 6 Pset Heads).

Press OK and save your data.



Click this button to update the tool.

Upgrading tool firmware



Contact your Desoutter representative to get the last version of firmware (.zip file).

Firmware version needs to be 3.0.0 or above.

The firmware version of the tool is displayed in the Screen Tool configuration.

Copy/paste the .zip file at C:\Program Files (x86)\Desoutter\XPB Config (directory by default).

Connect the tool to XPB Configuration.

Go to the tab Tool Maintenance.

Click Select zip file.

Select the file and click Open.

Click Update.

Green, blue and red light indicators are blinking. When the blue LED switches off, the upgrade is done.



Do not remove the battery pack while upgrading.

Updating Tool Paramaters

Contact your Desoutter representative for support.

Updating Head Paramaters

Contact your Desoutter representative for support.

Performing Motor Align

Contact your Desoutter representative for support.

Dedicated Motor Align head (P/N 6154013330) needs to be assembled on the tools to perform motor align.

Troubleshooting

Mechanical Troubleshooting

Fault	Cause	Remedy
Tool is locked	The tool upgrade is not working	Press the trigger and at the same time, insert the battery pack on the tool. Keep trigger pressed during 3s (green and red LEDs are blink). Then try the firmware update again. If the problem occurs again, contact your Desoutter representative for support.
	The tool is in <i>Standby Mode</i> .	Press the trigger to wake up the tool.
	The tool is in <i>Deep Sleep Mode</i> .	Unplug and plug the battery pack.
	The battery pack is discharged.	Change the battery pack.
	The battery pack is too low.	Check the battery pack level with XPB Config. Refer to <i>Preventing the Start When the Battery Pack Level is Too Low [Page 13]</i>
	The tool counter is reached.	Refer to <i>Locking the Tool When Counter is Reached [Page 13]</i>
	The cutting tool counter is reached.	Refer to <i>Preventing the Start When the Battery Pack Level is Too Low [Page 13]</i>
	The head maintenance counter is reached.	Refer to <i>Locking the Quick Release Head when counter is reached</i> .

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.

Software Troubleshooting

Number	Description	Procedure
I026	Tool maintenance alarm	Tool counter or date maintenance reached As Lock tool is enabled : Reset counter is necessary to unlock the tool
I027	Head maintenance alarm	Head counter or date maintenance reached As Lock head is enabled : Reset counter is necessary to unlock the tool
I057	Cfg error	Compatibility issue. Contact your Desoutter representative for support.
I062	Tool Overloaded	1. Overload of the torque (could be a rehit). 2. Check that the tool cable is not damaged.
I151	Cutting tool maintenance alarm	Cutting tool counter reached As Lock Pset is enabled: Reset counter is necessary to unlock the tool
I156	Warning torque level	Max torque reached. Try once again. If the problem occurs again, contact your Desoutter representative for support.
I205	Stop Torque	Max torque reached. Try once again. If the problem occurs again, contact your Desoutter representative for support.

Troubleshooting

Number	Description	Procedure
I211	Invalid trigger conf.	Check trigger configuration through XPB Config. If the problem occurs again, contact your Desoutter representative for support.
I251	No Pset selected	No Pset selected If the problem occur again, contact your Desoutter representative for support.
W030	Low battery	1. The battery is low. 2. Recharge the battery.
W152	Tool maint. / Tool counter	Maintenance date or maintenance counter reached on tool. Reset counter / update date needed.
W153	Head maint. / Head counter	Maintenance date or maintenance counter reached on tool Reset counter / update date needed.
W154	Cutting tool maint. Alarm	Cutting tool maintenance alarm (with extra cycle). Limit adjustment margin (set from 0 to 5 extra cycles). Maintenance date or maintenance counter reached on tool Reset counter / update date needed
W160	Curve memory full	1. The tool memory is full. 2. Connect the tool to XPB Config to empty the memory.
W284	Backup battery error	Defect in Time and Clock set on the tool. Warning message automatically acknowledged as soon as the trigger is pressed (will reappear at each battery connection). To set correct date and time into the tool: Connect the tool to the computer Read and write tool information (without modification) to copy date and time from computer.
E007	Motor temperature x°C	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.
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.
E029	Battery Empty	Min battery level reached. Battery needs to be charged.
E031	Over voltage	1. Check the battery pack. 2. This error can be due to charger malfunction or end of battery life.
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.
E048	Battery type not allowed	1. Battery type not allowed. 2. Replace the battery pack or your configuration.
E155	Version error	Invalid FW version on the tool. If the problem occurs again, contact your Desoutter representative for support.
E157	Head update needed	Compatibility issue between Head Version Vs Tool Firmware. Head needs to be updated through XPB Config. If the problem occurs again, contact your Desoutter representative for support.
E158	Head error	Try to remove/reassemble the head on the tool. If the problem occurs again, contact your Desoutter representative for support. Contact your Desoutter representative for support.

Number	Description	Procedure
E159	Motor align needed	Motor align needed on the tool. Refer to motor align procedure
E216	Over current	Max current reached. Try once again. If the problem occurs again, contact your Desoutter representative for support.
E223	Mosfet failure	1. Motor stalled (could be a 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.
E224	Tool temperature x°C	1. Power electronics too warm. 2. Let the system cool down .
E227	Motor error	1. Motor stalled (could be a missing phase, wrong motor tune or power electronics failure) 2. Try once again. 3. If the problem occurs again, contact your Desoutter representative for support.
E228	System error	1. Software failure. 2. Restart the system. 3. If the problem occurs again, contact your Desoutter representative for support.

Original instructions

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

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

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

Find more on www.desouttertools.com



More Than Productivity