



THE WORLD'S FIRST

WATERPROOF
CORDLESS
IMPACT
WRENCH

Functional Description and Specifications

Intended Use

The Nemo Submersible Impact Wrench is intended to carry out fastening applications both underwater and on dry land.

Packing List

Your Nemo Submersible Impact Wrench is packaged together with the following accessories:

- ◆ Two rechargeable 6 Ah Lithium-ion (Li-ion) battery packs
- ◆ Battery charger
- ◆ Hand pump
- ◆ Carrying case ◆ Drying cloth

Technical Specifications

Nemo Submersible Impact Wrench

Model	IW-18-3Li-50
Battery pack voltage	18V Li-ion
Battery cell specification	3Ah / 6Ah
Maximum speed	2200 RPM
Maximum torque	125 ft-lbs (170 N/m)
Maximum impacts per minute	3200 IPM
Square drive	½ in
Net weight (with battery)	6.17 lbs (2.8kg)
Working temperature	32-140°F (0-60°C)
Submersible up to	164 ft (50m)



Caution: You must pressurize the Impact Wrench before you can use it underwater, as described in *Pressurizing the Impact Wrench for Underwater Use*, pages 8-9 .

Battery Charger

Model	XVE-2100400
Approximate charging time	45 minutes
Charging output voltage	21V
Charging input voltage	100V – 240V

Safety Warnings



Warning: Read all safety warnings and instructions, and save them for future reference. Failure to adhere to these warnings can result in serious injury and damage to equipment.

Work Area Safety

- ◆ All work should be done in accordance with the local, state, and government occupational safety and health guidelines.
- ◆ Keep your work area clean and well lit.
- ◆ Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- ◆ Keep bystanders away when operating power tools.

Personal Safety

- ◆ Stay alert and use common sense when operating power tools. Do not use power tools when you are tired or under the influence of drugs, alcohol, or medication.
- ◆ Use personal protective equipment. It is recommended to always wear eye protection, as well as a P2 filter-class respirator.
- ◆ Dust from materials such as lead-containing coating, some wood types, minerals, and metal can be harmful to one's health. Observe the relevant regulations in your country for the materials to be worked.

Power Tool Safety

- ◆ Store idle power tools out of reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
- ◆ Maintain your power tools. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired by an authorized service technician.



Caution: Under no circumstances should the power tool be opened for repairs or any other purpose by anyone other than an after-sales service technician authorized by Nemo Power Tools. Opening the power tool invalidates the manufacturer warranty.

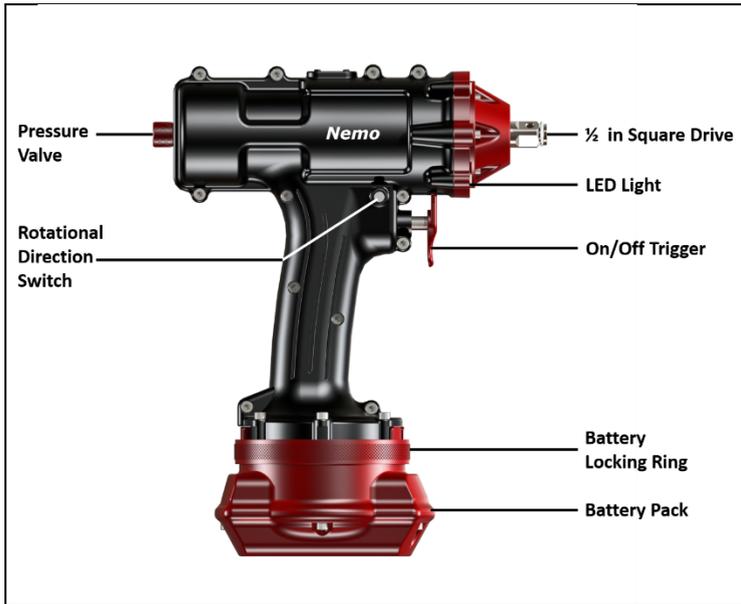
- ◆ Use power tools, accessories, and tool bits in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Consult local, state, and government occupational safety and health guidelines before operating a power tool.
- ◆ Switch off the power immediately if the tool bit jams. Be prepared for high reaction torque that can cause kickback. The tool bit can jam when the power tool is subject to overload, or if it becomes wedged in the workpiece.
- ◆ Hold the power tool with a firm grip. High reaction torque can briefly occur while driving in and loosening screws.
- ◆ Work only on secured, stable items. Do not hold any item to be worked on by the power tool in your hand. Secure the workpiece, clamped with clamping devices or in a vice, to ensure safety.
- ◆ Always wait until the power tool has come to a complete stop before placing it down. The tool bit can jam and lead to loss of control over the power tool.

Rechargeable Battery Safety

- ◆ Use only the battery pack supplied with your power tool.
- ◆ When the battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, and screws, which can make a connection from one terminal to another.
- ◆ Store the battery pack only within a temperature range of 32°F - 113°F (0°C - 45°C) .
- ◆ Before any work on the power tool, such as a tool change, as well as during transportation and storage, remove the battery pack from the power tool. There is danger of injury when accidentally activating the On/Off trigger.
- ◆ Do not open the battery.
- ◆ Protect the battery against heat, including continuous sun irradiation and fire.
- ◆ When the battery is defective, liquid can escape and come into contact with adjacent components.
- ◆ Use only original batteries with the voltage listed on the nameplate of your power tool. When using other batteries, such as imitations, reconditioned batteries, or other brands, there is danger of injury as well as property damage through exploding batteries.
- ◆ Use only the battery charger provided with the power tool to recharge the batteries. Only this battery charger is matched to the lithium-ion (Li-ion) batteries of your power tool.
- ◆ Protect the battery charger from rain and moisture. The battery charger is not waterproof.
- ◆ Do not charge other batteries. The battery charger is suitable only for charging the battery pack supplied with the tool.
- ◆ Before use, always check the battery charger, cable, and plug. If defects are detected, do not use the battery charger. Never open the battery charger. Instead, have it opened and repaired only by qualified personnel who will use original spare parts.

Getting Started with the Impact Wrench

Your Nemo Submersible Impact Wrench (IW-18-3Li-50) includes the following main components:



Charging the Battery

The Li-ion batteries are supplied partially charged, and must be charged to full capacity using the battery charger provided with the impact wrench before using the impact wrench for the first time.



Caution: Only use the battery charger provided with the impact wrench. Only this battery charger is matched to the Li-ion batteries supplied with your power tool.



Danger: Ensure that the voltage of the power supply corresponds with the data given on the nameplate of the battery charger.



Danger: Only use the charger in a dry environment. The charger is not waterproof. Never attempt to charge the battery under water.

A battery can be charged at any time without reducing its service life. This is because the battery charger detects the charging condition of the battery, and charges it with the optimum charging current according to its temperature and voltage. This lengthens the life of the battery, and leaves it fully charged when it is stored in the charger. Interrupting the charging procedure does not damage the battery.

1. Connect the mains plug of the battery charger to an electrical outlet. A steady green light on the battery charger indicates that the charger is ready for operation.
2. Press the battery charger's connector into the socket on the top of the battery pack. There is only one way to insert the connector into the battery socket.



The battery begins charging as soon as it is connected to the charger.

- ◆ A steady red light on the battery charger indicates that the battery is charging.
- ◆ A steady green light on the battery charger indicates that the battery is fully charged.



Note: The battery is equipped with an NTC temperature controller that only allows it to be charged when its temperature is between 32° F - 113° F (0°C- 45°C), ensuring a long battery service life.

3. When you are ready to use the battery, rotate the CHOGORI connector's plastic cap counterclockwise and pull it vertically out of the charger.

Inserting a Battery into the Impact Wrench

1. Set the rotational direction switch to the middle position.



Caution: To minimize the risk of accidental activation, always ensure the rotational direction switch is in the neutral (middle) position before performing any maintenance work on the impact wrench, as well as during transportation and storage.

2. Insert the battery into the bottom of the impact wrench base.



Caution: Use only a Li-ion battery from the original factory with the voltage listed on the nameplate of your impact wrench. Using other batteries not suitable for the impact wrench can lead to malfunctions, cause damage to the power tool, and pose a fire hazard.

3. Push the battery up until it is pushed to the limit, then rotate the locking ring until it is securely locked. The locking ring holds the battery pack in position and prevents it from detaching.

Removing a Battery from the Impact Wrench

1. Set the rotational direction switch to the middle position.



Caution: To minimize the risk of accidental activation, always ensure the rotational direction switch is in the neutral (middle) position before performing any maintenance work on the impact wrench, as well as during transportation and storage.

2. Rotate the locking ring counterclockwise. The locking ring holds the battery pack in position and prevents it from detaching.

3. Pull the battery pack out and down, without exerting any force.

Replacing the Impact Wrench Socket

1. Set the rotational direction switch to the middle position.



Caution: To minimize the risk of accidental activation, always ensure the rotational direction switch is in the neutral (middle) position before performing any maintenance work on the impact wrench, as well as during transportation and storage.

2. Pull off the socket that is currently on the square drive.
3. Align the hole in the side of the new socket with the detent pin on the side of the square drive.
4. Push the socket on the square drive until it locks into place.

Pressurizing the Impact Wrench for Underwater Use

Your impact wrench can be used in any wet conditions, and can be submerged and used underwater at depths of up to 164 ft (50m). Before submerging the impact wrench to any depth, it must be pressurized.

1. Remove the red cap from the pressure valve on the back of the impact wrench.



2. Attach a pump, such as the hand pump supplied with the impact wrench, to the valve.



3. Pressurize the impact wrench according to the depth to which you are going to submerge it, as follows:

Depth in meters	Depth in feet	Pressure
Up to 5m	16 feet	Minimum 15 psi (1 Bar)
Up to 10m	33 feet	Minimum 29 psi (2 Bars)
Up to 20m	66 feet	Minimum 44 psi (3 Bars)
Up to 30m	98 feet	Minimum 58 psi (4 Bars)
Up to 40m	131 feet	Minimum 73 psi (5 Bars)
Up to 50m	164 feet	Maximum 87 psi (6 Bars)



Caution: Never add more than 87 psi (6 Bars) of pressure to the impact wrench.

Best Practices for Underwater Operation

Your Nemo Submersible Impact Wrench is designed to be waterproof, so that it can be used both on land and underwater. To obtain the maximum serviceable life of your impact wrench, adhere to the following best practices when using the impact wrench underwater:

- ◆ You must pressurize the impact wrench before you can use it underwater, as described in *Pressurizing the Impact Wrench for Underwater Use*, pages 8-9 .
- ◆ Do not exceed the maximum operational depth as recommended by the manufacturer.
- ◆ The impact wrench is a hi-tech piece of equipment and should be treated with care. Its watertight seals may be damaged if it is dropped.
- ◆ When moving about or working underwater, the impact wrench should be secured to you by a tool leash at all times.
- ◆ The impact wrench may be used in salt water.



Note: After using the impact wrench in salt water, immediately rinse it in fresh water to remove all salt residue.

- ◆ Before storing the impact wrench in the carrying case after use in water, rinse it with fresh water and dry it off.
- ◆ Treat the high quality battery with care. Keep the battery fully charged and dry, ready for use, and always store it in the carrying case when not in use.
- ◆ Before inserting the battery into the impact wrench, check that the three **O**-rings on the battery are present and undamaged.



Caution: If any of the **O**-rings is missing or does not seal completely, water can enter the impact wrench or battery, causing serious damage.

Operating the Impact Wrench

Switching the Impact Wrench On or Off

- ◆ Press the On/Off trigger, and keep it pressed. You can increase the speed of the impact wrench by increasing the pressure on the switch. To switch off the impact wrench, release the On/Off trigger.

Fastening Nuts and Bolts

For optimal performance, ensure that you use the correct size socket. The wrong size socket can damage the nuts or bolts, and will result in imprecise and unpredictable fastening torque.

1. Perform a test operation to determine the fastening time required for your nut or bolt, to prevent excessive fastening torque that can damage the nut, bolt, or socket.
2. Hold the tool firmly and place the socket over the nut or bolt.
3. Turn the tool on and fasten the nut or bolt for the proper fastening time.

Reversing the Rotational Direction

The rotational direction of the impact wrench can be reversed using the rotational direction switch when the impact wrench is off, to alternately tighten and loosen nuts and bolts.

- ◆ To tighten nuts and bolts, push the rotational direction switch all the way to the left.
- ◆ To loosen nuts and bolts, push the rotational direction switch all the way to the right.
- ◆ To deactivate rotation, and only operate the LED flashlight, for example when performing maintenance, push the rotational direction switch to the middle, which is the neutral position.

Maintenance

Servicing the Impact Wrench

If your impact wrench is damaged or faulty, have it repaired by an authorized service technician.



Caution: Under no circumstances should the impact wrench be opened for repairs or any other purpose by anyone other than an after-sales service technician authorized by Nemo Power Tools. Opening the impact wrench invalidates the manufacturer warranty.

Transporting the Impact Wrench

For maximum protection, always transport your impact wrench secured in its carrying case, with the battery removed.

The battery pack has effective protection against internal over-pressure and short-circuiting, as well as devices preventing violent rupture and dangerous reverse current flow.

The lithium-equivalent content in the batteries is below applicable limit values. Therefore, the batteries are not subject to national or international regulations pertaining to dangerous mediums, either as individual components or when inserted into a power tool.

However, the regulations governing dangerous goods may be relevant when transporting several batteries. In this case, it might be necessary to comply with special conditions, such as those governing packaging.

Disposing of the Impact Wrench

At the end of its lifecycle, the impact wrench, its accessories, and packaging should be sorted for environmentally friendly recycling.

Do not dispose of the battery pack in household waste, fire, or water. Battery packs should be collected, recycled, or disposed of in an environmentally friendly manner.

Troubleshooting Battery and Charger

Problem: The battery is not charging, and there is a blinking red light on the battery charger.	
Possible Cause	Corrective Action
The battery is not correctly inserted into the charger.	Remove the battery from the charger, then re-insert it correctly.
The battery contacts are contaminated.	Clean the battery contacts, for example by removing and inserting the battery several times, or replace the battery.
The battery is defective.	Replace the battery.

Problem: The battery charger indicator does not light up.	
Possible Cause	Corrective Action
The mains plug of the battery charger is not correctly plugged into the socket.	Insert the mains plug fully into the socket outlet, and ensure that the socket is functional.
The socket outlet, mains cable, or battery charger are defective.	Check the voltage power; have the battery charger checked by an authorized after-service agent.



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Problem: The battery charger is warm to the touch.	
Possible Cause	Corrective Action
Continuous or repetitive charging cycles without a break may cause the charger to warm up.	No corrective action is required as this does not indicate a fault with the battery charger.

Problem: The battery operation time is significantly reduced, even after the battery is fully charged.	
Possible Cause	Corrective Action
The battery is defective, or has reached the end of its life (approximately 1000 charging cycles).	Replace the battery.

Problem: The impact wrench does not rotate.	
Possible Cause	Corrective Action
The rotational direction switch is in a neutral (middle) position, which operates only the LED light.	Push the rotational direction switch all the way to one side.
The battery has not been charged sufficiently.	Charge the battery and then try to use the impact wrench again.

Battery Safety Feature

A battery that " fails " or seems to have a short life before it shuts down , may simply be a battery that has gone into its SAFE mode .

A battery that has experienced an excessive current draw from a short circuit , or a high current draw when the tool was under an

excessive load , may shut down prematurely . This is a built-in safety feature.

If the battery contacts are not damaged , recharging the battery for a short period (even a few minutes) will reset the battery's electronics and restore the battery voltage to the voltage level before it shut down.

If this battery or another battery experiences the same problem immediately upon restarting the tool , then a short circuit should be suspected and the tool should be inspected for needed repair .

Disclaimer :

Nemo Power Tools Ltd reserves the right to change the contents of this manual at any time without prior notice .

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