



PRODUCT MANUAL

Portable Sonar Batteries (Gen 3)

Read and understand this manual before the use or installation of your Norsk Lithium® battery, charger, or accessory. Refer to the Safety Information section for additional information. Save these instructions for future reference.

WARNING: The use of electricity and the installation of batteries and/or electrical equipment or electrical systems present several hazards including electrocution, fire, injury, and death. Norsk is not liable for property damage, personal injury, or death that results from the use or installation of a Norsk battery or the use of the actions recommended in this document. Refer to the Safety Information section for additional information.

IF YOU DO NOT FEEL SAFE, OR COMFORTABLE, OR ARE NOT QUALIFIED TO PERFORM A BATTERY INSTALLATION OR OTHER ACTION OUTLINED IN THIS MANUAL, CONSULT A QUALIFIED PROFESSIONAL ELECTRICIAN.

ATTENTION: ALL PORTABLE SONAR BATTERIES SHIPPED IN SHUT-DOWN MODE

Please note **ALL Norsk Lithium® portable sonar batteries are shipped with a maximum 30% State of Charge (SOC) in SHUT DOWN** mode to improve overall safety in transit and to ensure our customers never receive a battery that has been damaged due to over-discharge caused by the battery sitting in a warehouse or on a shelf for an extended time.

To wake your battery from Shut Down mode, plug the provided charger into an electrical outlet and connect the battery. The battery will wake from Shut Down mode within 10-15 seconds. Once woke from Shut Down mode, the battery charger LED will switch from **GREEN** to **RED** to indicate the charge has started. At this point, it is recommended that the user fully charge the battery prior to the first use.

Note: For portable sonar battery models with a Power Management button and State of Charge (SOC) indicator panel on the top of the battery, when the provided charger is connected to a battery in Shut Down mode, as soon as the battery wakes from Shut Down mode, the SOC indicator panel will illuminate all 4 LED indicator lights two times before the charging process begins normally.

THANKS FOR YOUR PURCHASE!

Welcome to the Norsk Lithium family and thank you for purchasing a Norsk Lithium Battery. Our batteries are designed to provide reliable and long-lasting power for your ice fishing needs. This user guide will provide you with essential information on how to use, charge, store, and maintain your battery to ensure optimal performance. Please read this user guide in full prior to using your new Norsk Lithium Battery.

CUSTOMER SERVICE

We stand behind the quality of our batteries and are committed to providing you with excellent customer service. If you purchased your product from a retail location or Amazon and have any questions or concerns please DO NOT return it to the store. Instead, please contact us at support@norsklithium.com and we would be happy to help you resolve any issues you may be experiencing.

HELP CENTER

If you have any questions or concerns about your Norsk Lithium Ion Ice Fishing Battery, you can also visit our Help Center on our website. There you will find FAQs, How-to-Videos and Warranty Information:

www.norsklithium.com/help-center

You can also contact our customer support team via email or phone, and we will be happy to assist you.

WARRANTY

Norsk Lithium offers a limited four-year warranty on all 12.8V and 14.8V Portable Sonar Batteries. The warranty coverage starts on the date of purchase as shown on the original purchase receipt.

All 14.8V Portable Sonar Batteries with an orange case manufactured with an integrated Bluetooth module intended to support communication with the Norsk Guardian® App are eligible for 4+2 year warranty coverage that extends the four-year warranty an additional two years for a total of six years of warranty coverage. To receive the additional two years of warranty coverage the owner must register the eligible battery for the 4+2 year warranty coverage in the Norsk Guardian app within 90 days of purchase as shown on the dated receipt submitted during warranty registration.

Note: The 4+2 year warranty coverage does not apply to Norsk Lithium 12.8V Portable Sonar Batteries with a green battery case as these batteries do not have an integrated Bluetooth module required to support communication with the Norsk Guardian App.

This warranty covers manufacturing defects and does not cover damage caused by charging with an incompatible charger, misuse, abuse, or neglect. Please visit the warranty page on our website at www.norsklithium.com/warranty/ for more information on our warranty terms and conditions.

WARRANTY REGISTRATION

Owners of a Norsk Lithium Portable Sonar Battery are encouraged to register their 12.8V green case or 14.8V orange case battery using one of the three methods described below:

- Save a copy of your receipt showing the battery model and purchase date for submission to Norsk Lithium Customer Service in the event warranty coverage is needed.
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- Register the battery for warranty online at norsklithium.com by creating an account and filling out a Product Registration form found at www.norsklithium.com/product-registration/.
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- Register the battery for warranty through the Norsk Guardian app by creating an account and submitting ownership information for each battery added to the app. To start this process click "YES" when asked "Do you want to be the owner of the battery XXXX" after adding a battery to a group. Complete the submission via the app by providing the requested information.
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- Battery owners who registered their battery(s) online or via the app can check the status of their warranty registration online at www.norsklithium.com/product-registration/.

INCLUDED EQUIPMENT

All Norsk Lithium Portable Sonar Batteries are sold as a bundle that includes the following:

- Portable Sonar Battery with protective terminal clips
- 3A Battery Charger in clear plastic sleeve with optimized amperage and voltage output for each respective battery chemistry
 - Orange-bodied 3A 16.8V charger provided for batteries with an orange battery case
 - Green-bodied 3A 14.2V charger provided for batteries with a green battery case
 - Orange-bodied chargers will not charge a battery with a green case, and vice versa.
- When shorter charge times are needed, optional 7A 16.8V Rapid Chargers compatible with 30Ah and 50Ah portable sonar batteries are available online at www.norsklithium.com or from your favorite retailer. **Note:** 7A 16.8V Rapid Chargers are not compatible with 14.8V 15Ah and 20Ah portable sonar batteries.
- SAE to battery connector harness constructed with 14 gauge wire. Includes piggyback spade to portable sonar battery connectors to support additional connections to the battery terminals if needed
- User manual

CHARGING PROCEDURE

The 3A charger provided with your Norsk Lithium Portable Sonar Battery is a fully automatic charger that WILL NOT overcharge your battery if left connected once the battery reaches full charge and includes an integrated LED to indicate charger status.

- If the charger is plugged into a household electrical outlet and a battery is NOT connected, the charger indicator light will illuminate **GREEN**.
- When the charger is plugged into a household electrical outlet and a battery is connected, if the integrated LED light is illuminated **RED**, the battery is charging.
- When the charger is plugged into a household electrical outlet and a battery is connected, if the integrated LED light is illuminated **GREEN**, the battery is fully charged.
- If the temperature of the battery's internal cell pack is too low to accept a charge and the charger is plugged into a household electrical outlet and a battery is connected, the charger indicator light will illuminate **GREEN**, and the charge cycle will be delayed until the battery's internal cell pack has warmed sufficiently for the charge to safely be accepted by the battery.

Once the battery has been fully charged, it is recommended that the charger be disconnected from the battery, and the charger unplugged from the household electrical outlet.

Note: All Norsk Lithium Portable Sonar Batteries include low-temperature charge protection that will keep your battery from accepting a charge when the temperature of the cell pack inside the battery case is below 32° F / 0° C. When the included charger is plugged into a household electrical outlet and a Norsk Lithium portable sonar battery with a cell pack temperature below 32° F / 0° C is connected to the charger, the battery's BMS will prevent the charge cycle from starting until the cell pack temperature inside the battery case has warmed to a temperature safe for the charge to take place. The user does not need to unplug the charger during the warming process. When the cell pack warms to the protection release temperature of approximately 18° F / 13° C, the battery's BMS will allow the charge cycle to take place normally.

- To warm the battery's internal cell pack to a temperature safe for charging, place the battery in a dry location (heated garage, basement, kitchen countertop, etc.) and allow the battery to warm naturally.
- **WARNING: DO NOT** attempt to speed up the warming process by placing the battery on a source of heat such as a heat register or by submerging the battery in water. Doing so may result in inconsistent warming of the cell pack and could potentially cause irreversible damage.

CAUTION: While other chargers may offer similar output amperage and voltage, many chargers **DO NOT** offer the same list of safety features (Over-Current, Over-Voltage, Short-Circuit) integrated into all Norsk Lithium Portable Sonar Battery Chargers and, for this reason, are **NOT** recommended for use with Norsk Lithium Portable Sonar Batteries.

WARNING: The provided charger is not waterproof and is not suitable for permanent installation in high-humidity areas. If the charger is exposed to or submerged in water please discontinue the use of the charger immediately and discard the charger in an appropriate receptacle.

WARNING: NEVER charge the battery unattended. **DO NOT** use a damaged, broken, or incompatible charger. **VERIFY** charger compatibility with color prior to use.

POWER MANAGEMENT BUTTON AND STATE OF CHARGE (SOC) INDICATOR

- **Note:** the Power Management Button and SOC Indicator are found on 14.8V portable sonar battery models with an orange battery case only. This section is not applicable to 14.2V portable sonar battery models with a green battery case.
- The Power Management Button and State of Charge Panel found on 14.8V battery models work together to allow the user to receive vital information about the status of their battery and to activate advanced features such as Deep Sleep™.

HOW TO USE THE POWER MANAGEMENT BUTTON

QUICK PRESS - Check Status (State of Charge) / Disable Deep Sleep

LONG PRESS - 3 Lights: Enable Deep Sleep

LONG PRESS - 4 Lights: Reset BMS

QUICK PRESS

A "QUICK PRESS" is defined as a press of the Power Management Button with an immediate release. The QUICK PRESS will trigger the State of Charge Panel to display the current State of Charge status of the battery by illuminating lights in the charge panel for 5 seconds.

1 LED Light = 0% - 25% SOC

2 LED Light = 26% - 50% SOC

3 LED Light = 51% - 75% SOC

4 LED Light = 76% - 100% SOC

The "QUICK PRESS" will also wake a battery that has been placed into Deep Sleep. Once the battery wakes from Deep Sleep, the State of Charge panel will display the current State of Charge status of the battery by illuminating lights in the charge panel for 5 seconds.

LONG PRESS - 3 LIGHTS: ENABLE DEEP SLEEP™

Deep Sleep™ is a very powerful feature that allows a user to place a battery into a protective state ideal for use when the battery is to be placed into storage. When the battery is placed into Deep Sleep, there is no voltage at the terminals which means an attached device cannot discharge the battery when not in use for extended periods. Norsk Lithium strongly advises that all Norsk Lithium batteries be placed into Deep Sleep when the battery will not be used for long periods.

A "LONG PRESS - 3 Lights" is defined as a press of the Power Management Button that is held until 3 LED Lights illuminate on the State of Charge Panel followed by an immediate release.

Note: The best method for verifying Deep Sleep has been enabled is the following:

- Attempt to power up any device attached to the battery. If Deep Sleep is successfully enabled, the device will not power on.
- Using a multimeter, verify there's no longer voltage at the battery terminals.
- Verify that Deep Sleep has been enabled in the Norsk Guardian® App.

LONG PRESS - 4 LIGHTS: RESET THE BMS

Should you need to reset your battery's BMS to return the battery to factory default settings or to clear out a Personal Identification Number (PIN) selected to secure the battery, "LONG PRESS - 4 Lights" is defined as a press of the Power Management Button that is held until 4 LED Lights illuminate on the State of Charge Panel followed by an immediate release.

If the BMS Reset is successful, the State of Charge Panel will illuminate LED Lights 1-4 in sequence TWO TIMES before displaying the battery's current State of Charge.

WARNING / FAULT LIGHTS

In the event of a short circuit or other serious warning, when the Power Management Button is QUICK PRESSED, all 4 LED lights will flash repeatedly for 5 seconds. After the battery's State of Charge Panel displays the State of Charge by illuminating 1-4 lights, the battery is ready to return to service.

Owners of Norsk Lithium 14.8V Portable Sonar Batteries equipped with Bluetooth can install the Norsk Guardian App and connect to their battery using the provided battery ID that is found on top of each battery to access additional information about the cause of the warning.

In the event of a warning, please discontinue the use of the battery until the cause of the warning is diagnosed and remedied. For example, if the cause of the warning is a short circuit, identify and eliminate the cause of the short circuit. Once the short circuit is removed, the warning indicated by all 4 LED Lights flashing repeatedly for 5 seconds should be cleared from the display within 1-2 minutes and the battery should return to normal operation mode.

USB PORTS

Note: USB ports are found on 14.8V portable sonar battery models with an orange battery case only. This section is not applicable to 12.8V portable sonar battery models with a green battery case.

Norsk Lithium 14.8V portable sonar batteries come equipped with two USB ports described below:

- **Port #1** - USB Type-C. Max current = 3.0A
- **Port #2** - USB Type-A. Max current = 1.5A

All integrated USB ports on all Norsk Lithium 14.8V Portable Sonar Batteries have an IPX8 rating that indicates the ports are water resistant and can withstand being submerged in water for up to 30 minutes at a depth of at least 1 meter. The IPX8 rating does not include resistance to dust, dirt, or debris.

Note: While the USB ports have an IPX8 rating, the USB ports WILL NOT output current / power devices when the USB ports have been exposed to water. Water present in the USB ports will cause a short circuit that will trigger the BMS to disconnect power to the USB terminals. In the event your USB ports become exposed to water, dry them prior to returning the USB ports to service.

If the USB ports on your Norsk Lithium 14.8V Portable Sonar Battery are exposed to water,

PLEASE DO THE FOLLOWING:

- Open the protective cover to the USB ports and allow water to drain from the ports by tipping the battery on its side or upside down
- Allow room temperature air flow to dry the ports
- If the ports are exposed to saltwater, GENTLY rinse the ports with fresh water prior to drying. Accumulated salt and other minerals found in saltwater will damage the USB ports if not rinsed thoroughly following exposure to salt water and will void your battery's warranty.
- If the ports are exposed to dust, dirt, or debris, GENTLY rinse the ports to remove the foreign matter with fresh water prior to drying.

If the USB ports on your Norsk Lithium 14.8V Portable Sonar Battery are exposed to water:

DO NOT use pressurized air to force water from the USB ports

DO NOT expose the battery and the USB ports to a heat source in an attempt to speed up the drying process

DO NOT attempt to power a device connected to the USB port when water, dust, or debris has entered the USB port

BATTERY CASE

All Norsk Portable Sonar Batteries are constructed using an impact-resistant ABS plastic that is designed to provide years of reliable service and offer an IP67 rating. This IP67 rating provides the following protections:

- The battery can withstand being submerged in water for up to 30 minutes at a depth of at least 1 meter
- The device is completely protected from dust and airborne particles

If the integrity of the battery case is compromised in any way through a significant impact or exposure to chemicals that degrade the case integrity to the point where water is able to penetrate the external case and gain entry into the interior of the battery, immediately discontinue the use of the battery.

SAFETY INFORMATION

APPROVED WIRING CONFIGURATIONS:

Norsk Lithium portable sonar batteries are **NOT** approved for use when connected to another battery in series or parallel, including Norsk Lithium portable sonar batteries of the same voltage and capacity. If a battery operating at a higher voltage or offering a higher capacity is needed, please contact Norsk Lithium customer service at support@norsklithium.com for recommendations.

Lithium batteries can present a fire and explosion hazard. To minimize these hazards use and install Norsk products only as directed and, where appropriate, seek qualified, professional assistance. During installation and use:

- Consider all battery terminals and connections live.
- **DO NOT** place items on the battery.
- Inspect the battery and connections prior to installation and before each use. **DO NOT** use or install if the battery or battery connections are faulty or damaged.
- **DO NOT** short-circuit the battery.
- Use insulated tools.
- Avoid wearing metal, metallic, or other conductive jewelry or watches when working with the battery.
- Verify the wire gauge is correct for the application and length of the wire.
- Verify terminal connectors are tight and that wiring has an adequate surface connection on the terminals.

IN THE EVENT OF A FIRE YOU MUST USE A TYPE D, FOAM, OR CO2 FIRE EXTINGUISHER. DO NOT ATTEMPT TO EXTINGUISH A LITHIUM BATTERY FIRE WITH WATER. Norsk Lithium recommends keeping a suitable fire extinguisher on hand during installation and use.

Precautions

Norsk Lithium can't list every possible scenario or safety precaution. Use common sense. Follow manufacturer recommendations. If you are unqualified or do not feel comfortable, seek qualified professional help.

Below is a non-exhaustive list of precautions to take during the use and installation of your Norsk Lithium battery. Failure to follow these precautions may result in fire, property damage, personal injury, and/or death.

Use **ONLY** Norsk Lithium Chargers and charging components. **DO NOT** overcharge the battery. The Battery Management System (BMS) will turn the battery off in case of overcharging, but repeated overcharging may damage the battery.

DO NOT charge the battery unattended. See Charging Procedure section for more information.

DO NOT charge or operate a battery that is visibly damaged, dented, bulging, punctured, or otherwise in an inoperable condition.

DO NOT short-circuit lithium batteries. Doing so can damage your battery, and may cause high temperatures or current which can cause fire, personal injury, or death.

DO NOT heat over 140°F (60°C). Doing so may cause damage to the battery, housing, or charger.

DO NOT exceed max discharge specifications for the battery.

DO NOT submerge the battery in water. Keep the battery in a dry environment. Norsk Lithium recommends the use of a battery box for use in marine applications or environments where the battery may get wet.

DO NOT store batteries, chargers, or accessories near heat sources, in direct sunlight, or near high-temperature sources or gas emitters such as fire, heaters, propane tanks, generators, fuel storage, etc. Follow all other charging and storage guidance.

DO NOT store batteries, chargers, or accessories with other metal or metallic objects, batteries, or electronic devices. Failure to follow this precaution could result in inadvertent terminal connection and fire and/or explosion.

DO NOT dispose of lithium batteries in the trash. **DO NOT** dispose of the battery by crushing, cutting, or exposing it to fire, or high temperatures, as an explosion can result. Follow all local, state, and/or federal laws and regulations related to the disposal and recycling of batteries. Seek assistance if necessary.

Hazards

Norsk Lithium batteries are not hazardous when used according to the manufacturer's recommendations. In cases of abuse, damage, or destruction of the battery or battery cells there are hazards of rupture, fire, heat, and leakage of internal components which may lead to exposure to hazardous chemicals. Contact us at support@norsklithium.com if you have questions about uses or applications for Norsk Lithium batteries.

Internal battery cells contain hazardous materials. **NEVER** try to open or dismantle the battery or battery cells. **DO NOT** puncture the battery case, or cells, disassemble the battery, or expose it to fire or high heat. Damage to the battery or battery cells may result in fire, explosion, and/or burns.

Exposure to internal components may result in exposure to hazardous materials including: In case of rupture, avoid contact with skin, eyes, or clothing, and avoid breathing of any fumes.

If EYE exposure occurs, flush your eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

If SKIN exposure occurs, remove contaminated clothes and rinse skin with plenty of water or shower for at least 15 minutes. Seek medical attention if necessary.

If INHALED, remove from exposure and move to fresh air immediately. Use oxygen if necessary and available.

If INGESTION occurs, **SEEK MEDICAL ATTENTION IMMEDIATELY. DO NOT** induce vomiting or give food or drink.

Refer to Norsk Lithium Battery Safety Data Sheets for additional safety information. Safety Data Sheets can be found at: www.norsklithium.com.

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference., and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada Statement: CAN RSS-GEN/CNR-GEN

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) this device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

ADDITIONAL FCC/ISED STATEMENTS FOR NORSK GUARDIAN® ENABLED DEVICES:

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada: CAN RSS-GEN/CNR-GEN

Under Industry Canada's regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p) is not more than that necessary for successful communication.

CALIFORNIA PROPOSITION 65

Norsk Lithium Portable Sonar Batteries - Lithium Iron Phosphate (LiFePO4/LFP) Chemistry:

⚠ WARNING: This product can expose you to chemicals including Nickel and Acetylene Black which are known to the state of California to cause Cancer. For more information go to www.P65warnings.ca.gov.

Norsk Lithium Portable Sonar Batteries - Lithium-Ion (NMC) Chemistry

⚠ WARNING: This product can expose you to chemicals including Nickel which is known to the state of California to cause Cancer. For more information go to www.P65warnings.ca.gov.



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CUSTOMER SERVICE HOURS

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You can also share your fishing experiences with us by tagging Norsk Lithium and using the hashtag **#NorskLithium** on your post. For the latest product videos, comparison videos and how-to videos, subscribe to our YouTube Channel:

www.youtube.com/@NorskLithium.