**OPERATOR'S MANUAL** 



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# EVOTORQUE<sup>®</sup> BATTERY PACK (EBP SERIES) MODEL EBP 60334



Part Number 34466 | Issue 1 | Original Instructions (English)

	EN	English	Operator's Manual	Original Instructions
	DA	Dansk	Betjeningsvejledning	Oversættelse af oprindelige instruktioner
	NL	Nederlands	Handleiding	Vertaling Van De Originele Instructies
	FI	Suomi	Käyttäjän opas	Käännös a lkuperäisistä ohjeista
	FR	Français	Manuel d'utilisation	Traduction des instructions originales
	DE	Deutsch	Bedienungsanleitung	Übersetzung der Originalanweisungen
	IT	Italiano	Manuale d'uso	Traduzione delle istruzioni generali
	NO	Norsk	Manual for maskinoperatør	Oversettelse av de originale instruksjonene
	PL	Polski	Instrukcja obsługi	Tłumaczenie oryginalnej instrukcji
(B)	PT	Português	Manual do utilizador	Tradução das Instruções Originais
	ES	Español	Manual del operario	Traducción de las instrucciones originales
	SV	Svenska	Bruksanvisning	Översättning av bruksanvisning i original

# SAFETY MESSAGES

Norbar provides safety messages to cover reasonable situations that may be encountered when operating, servicing or repairing cordless tools. It is the responsibility of operators and servicing technicians to be knowledgeable about the procedures, tools and materials used, and to satisfy themselves that the procedures, tools and materials will not compromise their safety, that of others in the workplace or the tool.

#### **General Safety Rules**





Read all safety warnings, instructions, illustrations, and specifications provided with this battery pack. Failure to follow all instructions as listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

# SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

#### Work Area Safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### **Electrical Safety**



- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

#### Personal Safety



- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Personal protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves

away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

 If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

Power Tool Use And Care



- Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain 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 before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

## Specific Safety Rules



Risk of electric shock.

• Hold power tools by insulated gripping surfaces when performing an operation where the fastener may contact hidden wiring or its own cord. Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

#### Battery Tool Use And Care



- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury or fire.
- When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 120°F (49°C) may cause explosion.
- Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

#### Service



- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.
- For the location of the nearest Norbar repair centre, please call Norbar customer service at +44 (0) 1295 753600

#### **Compatible Products**

- Only use battery with Norbar EvoTorque<sup>®</sup> Tools (EBT series). Other tools are not compatible.
- Only charge battery with Norbar EvoTorque<sup>®</sup> Battery Charger (CTC123 (60335)). Other chargers are not compatible.

## BATTERY PACK SAFETY MESSAGES





Risk of explosion or fire.

- Do not store the tool and battery in locations where the temperature may reach or exceed 120°F (49°C).
- EBP chargers will not charge battery when temperature is below 32°F (0°C) or above 113°F (45°C).
- Do not incinerate the battery, even if severely damaged or completely exhausted. The battery may explode in fire.
- Cover the battery pack terminals with heavy adhesive tape after removing the battery pack.
- Do not attempt to destroy or disassemble the battery pack or remove any of its components.
- Do not charge battery pack using an engine generator or DC power source.

• Charge battery pack in a well ventilated area. *Explosion or flames can cause injury.* 



Risk of electric shock.

- Do not disassemble the battery.
- Do not short circuit the battery.
- Charge battery pack only with Norbar brand chargers for specified battery packs.
- Disconnect battery pack when not in use, before servicing and when changing accessories.
- Do not charge battery pack using an engine generator or DC power source.

Electric shock or fire can cause injury.



Risk of burn.

- Battery leakage may occur under conditions of extreme usage or temperature.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Ensure the switch is in the off position before inserting battery pack. Inserting the battery pack into power tools that have the switch on invites accidents.
- When battery pack is not in use, do not place it in a clothing pocket. Battery leakage or sparks may cause burns or fire.



Risk of short circuit and fire.

- Do not short battery pack.
- Do not touch the terminals with any conductive material.
- Avoid storing battery pack with conductive materials such as nails, screws, coins, and other metallic objects.
- Do not carry battery pack in aprons or pockets that contain conductive objects. Short circuit can cause fire and severe burns.

#### Safety Rules for Battery Disposal







Risk of explosion or fire.

**Do not throw away used batteries!** Placing spent Lithium-Ion batteries into the general waste may be ILLEGAL.

Where possible contact  $RBRC^{TM}$  to dispose of the battery. The  $RBRC^{TM}$  seal on the Lithium-Ion battery contained in this product indicates that *Norbar* is voluntarily participating in an industry



program to collect and recycle these batteries at the end of their useful life.

Alternatively dispose of the battery following local regulations.

If in doubt contact a Norbar authorized repair centre for recycling information.

Explosion or flames can cause injury.

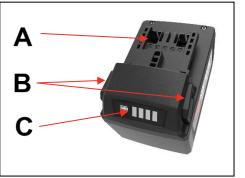


Risk of fire.

- Do not attempt to disassemble the battery or remove any component projecting from the battery terminals.
- Prior to recycling, protect exposed terminals with heavy insulating tape to prevent shorting. *Fire can cause injury.*

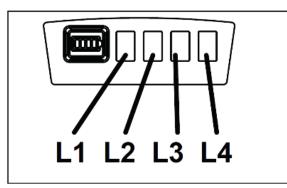


## FUNCTIONAL DESCRIPTION



A – Terminal

- B Latch Button
- C Fuel Gauge



- L1 Solid Light 25% Charge
- L2 Solid Light 50% Charge
- L3 Solid Light 75% Charge
- L4 Solid Light 100% Charge

## BATTERY PACK SPECIFICATIONS (Norbar EBP 60334)

Туре	Lithium-Ion			
Voltage	_18 VDC (3.6V X 5 cell pairs)			
Weight	· · · /			
-				
Charge Time				
Life	1,000 cycles (Note: 1 cycle = 1 charge and 1 discharge)			
Capacity	_5.0 A•H			
Discharge Temperature Range20°C (-4°F) to 60°C (140°F)				
Charging Temperature Range0°C (32°F) to 45°C (113°F)				

# BATTERY PACK

## **Fuel Gauge**

Press the fuel gauge button, the display lights will light up and show the battery pack's remaining run time. The lights stay on for 5 seconds. Note: If fuel gauge is not working, charge the battery pack.

## Charge Cycle Counter

Press the fuel gauge button for twenty (20) seconds to read the charge cycle counter. Count number of flashes to figure out cycle count.

Example 1:

- L1 Flashes one (1) time
- L2 Flashes three (3) times
- L3 Flashes four (4) times
- L4 Flashes five (5) times

It means battery was charged 1,345 times

Example 2:

- L1 No flashes
- L2 Flashes six (6) times
- L3 Flashes seven (7) times
- L4 Flashes eight (8) times

It means battery was charged 678 times

## **Battery Pack Protection**

To maximize performance and battery life, the Lithium-Ion battery's protection circuit monitors battery voltage, discharge amperage and temperature.

When the battery voltage falls below the usable range, the battery will shut off, and the 1st LED will flash. After the trigger is released, the LED will stop flashing when the battery voltage returns to the usable range. If the 1<sup>st</sup> LED continues to flash for more than a few seconds, the battery needs charging.

Battery over temperature - indicated by all (4) LED lights flashing on the battery. This means that internal temperature of the battery is too high and it will stop the battery operation to prolong battery life. The lights will continue to flash for four (4) minutes after each trigger pull until temperature lowers to an acceptable level. External fan cooling can be used to speed the battery cooling time.

If a hot or cold battery is placed on charger, charger will not charge the battery and will be indicated by a Yellow flashing light on the charger. The charger goes into a fast charge mode when the battery temperature is between  $0^{\circ}C$  ( $32^{\circ}F$ ) and  $45^{\circ}C$  ( $113^{\circ}F$ ).

### **Cold Weather Operation**

The Lithium-Ion battery can be used in temperatures down to  $-20^{\circ}$ C ( $-4^{\circ}$ F). When the battery pack is very cold, run the tool at no load to warm battery and then use the tool normally.

#### Hot Weather Operation

If the Lithium-Ion battery temperature reaches  $70^{\circ}$ C (158°F), the protection circuit will turn off the battery and all four LED's will flash. Once the battery has cooled down below  $65^{\circ}$ C (149°F), the battery will resume normal operation.

#### Storage

Do not expose your battery pack to water or rain; this could damage the battery pack.

Fully charge the battery before placing it in storage. For optimum life, store the Ni-Cad and Lithium-Ion batteries at room temperature away from moisture. Permanent capacity loss can result if batteries are stored for a long period at high temperature, over  $49^{\circ}C$  ( $120^{\circ}F$ ).

## MAINTENANCE

When charging or discharging a nickel-cadmium or Lithium-Ion battery over a short period of time, the internal temperature of the battery pack increases substantially. This is normal.

- Under ideal working conditions the useful life of a lithium ion battery pack is around 1,000 charge/discharge cycles. Improper care and maintenance shortens battery life and the amount of time the battery holds a charge.
- Use only with Norbar charging equipment that specifies a EBP series battery pack.
- Avoid short circuiting the battery pack. Permanent damage to the pack can occur from high current discharge.



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