

BADGER

40V LITHIUM-ION RECHARGEABLE BATTERY AND CHARGER USER'S MANUAL



40V 2.0Ah
Battery
LBA40120-1



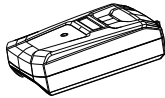
40V 2.5Ah
Battery
LBA40125-1



40V 4.0Ah
Battery
LBA40240-1



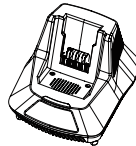
40V 5.0Ah
Battery
LBA40250-1



40V 1.0A
Charger
CGA401U



40V 2.0A
Charger
CGA402U



40V 5.1A Rapid
Charger
CGA405U

Important!

It is essential that you read the instructions in this manual before mounting and operating this machine.

SAFETY GUIDELINES - DEFINITIONS

It is important to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.

⚠ DANGER: Indicates an imminently hazardous situation which, if not avoided will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE: Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

⚠ WARNING

This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer, and Bisphenol-A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

DISCLAIMERS:

All information, illustrations and specifications in this manual are based on the latest information available at the time of publishing. The illustrations used in this manual are intended as representative reference views only. Moreover, because of our continuous product improvement policy, we may modify information, illustrations and/or specifications to explain and/or exemplify a product, service or maintenance improvement. We reserve the right to make any change at any time without notice. Some images may vary depending upon which model is shown.

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⚠ DANGER: This manual contains important instructions for operating this product. For your safety and the safety of others, be sure to read this manual thoroughly before operating the battery/charger. Failure to properly follow all instructions and precautions can cause you and others to be seriously hurt or killed.

BATTERY SPECIFICATIONS

Model	Part Number	Watt Hours	Number of Cells	Voltage Per Cell	Charge Time
40V 2.0Ah Battery	LBA40120-1	72Wh	10	3.6V	60 min with 2.0A Charger 120 min with 1.0A Charger
40V 2.5Ah Battery	LBA40125-1	90Wh	10	3.6V	75 min with 2.0A Charger 150 min with 1.0A Charger
40V 4.0Ah Battery	LBA40240-1	144Wh	20	3.6V	120 min with 2.0A Charger 240 min with 1.0A Charger
40V 5.0Ah Battery	LBA40250-1	180Wh	20	3.6V	150 min with 2.0A Charger 300 min with 2.0A Charger

WHERE IS MY SERIAL NUMBER? All serial numbers are located on back of product.

BATTERY SAFETY INFORMATION

For the proper use, maintenance and storage of this battery, it is important that you read and understand the instructions given in this manual.

To avoid serious injury, risk of fire, explosion, and danger of electric shock or electrocution:

- DO NOT probe the charger with conductive materials. The charging terminals hold 120V.
- If the battery case is cracked or damaged, do not insert into the charger. Replace with a new battery.
- DO NOT charge BADGER batteries with any other type of charger.
- DO NOT spill liquids on the battery or charger.
- DO NOT try to use the charger for any other purpose than what is presented in this manual.
- DO NOT try to short circuit any terminals of battery.
- If battery fluid leaks and gets in your eyes, flush immediately with clean water for at least 15 minutes. Seek immediate medical attention.
- DO NOT charge the battery in rainy or in wet conditions. Do not immerse the tool, battery, or charger in water or other liquid.

WARNING:

- DO NOT allow the battery or charger to overheat. If they are warm, allow them to cool down.
- Recharge only at room temperature.
- DO NOT cover the ventilation slots on the top of the charger. Do not set the charger on a soft surface, i.e. blanket, pillow. Keep the ventilation slots of the charger clear.
- DO NOT allow small metal items or material such as steel wool, aluminum foil, or other foreign particles into the charger vents.
- Unplug the charger and remove battery before wiping off dust. Do not clean with liquids.
- DO NOT place the battery in the sun or in a warm environment. Keep at room temperature.
- DO NOT try to connect two chargers together.
- Keep in shady, cool and dry conditions.
- To sustain battery life make sure to charge the battery at a minimum for 2 hours every month.
- The battery cells may develop a small leak under extreme usage or temperature conditions. If the outer seal is broken and the leakage gets on your skin:
 - Use soap and water to wash immediately. Neutralize with lemon juice, vinegar, or other mild acid.
 - If leakage gets in your eyes, follow instructions above and seek medical attention.
 - Do not use a damp cloth or detergent on the battery or battery charger.
- Always remove the battery before cleaning, inspecting, or performing any maintenance on the tool.

Safety notes and precautions

- DO NOT disassemble the battery.
- Keep away from children.
- DO NOT expose the battery to water or salt water.
- Battery should be stored in a cool and dry location.
- DO NOT place the battery in high-temperature locations, such as near a fire, heater, etc.
- DO NOT reverse the positive terminal and the negative terminal of the battery.
- DO NOT connect the positive terminal and the negative terminal of the battery to each other with any metal objects.
- DO NOT knock, strike, or step on the battery.
- DO NOT pierce the battery with nails or other sharp objects.
- Immediately discontinue use of the battery, if, while using the battery, it emits an unusual smell, feels hot, changes color, changes shape, or appears abnormal in any other way.

BATTERY STORAGE

⚠ WARNING:

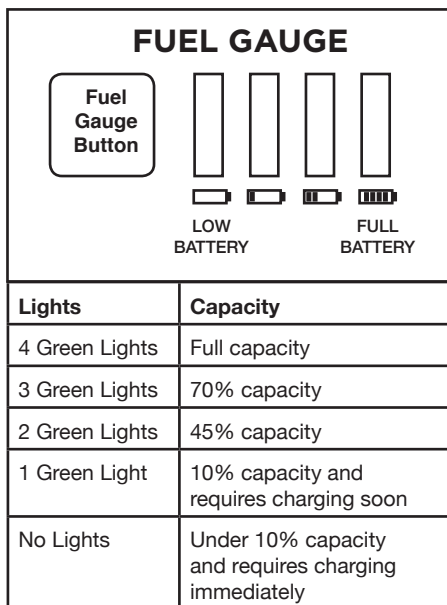
Storage tips:

- Make sure the battery is fully charged and that the charger is disconnected before storing.
- Do not store the battery in sunlight, in an excessively warm place, or near a furnace. The battery life will be shortened.
- If the battery must be stored in a warm place, charge it frequently.

BATTERY OPERATION

CHECKING BATTERY CAPACITY

Press the Fuel Gauge button below. The lights will illuminate according to the batteries capacity level. See chart below:



BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

To preserve natural resources, please recycle or dispose of batteries properly. This product contains lithium-ion batteries. Local, state or federal laws may prohibit disposal of lithium-ion batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.



⚠ **WARNING:** Upon removal, cover the battery pack's terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Lithium-ion batteries must be recycled or disposed of properly. Also, never touch both terminals with metal objects and/or body parts as short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

CHARGER SAFETY INFORMATION

⚠ WARNING: READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

• Before using charger, read all instructions and cautionary markings in this manual, on charger, battery, and product using battery to prevent misuse of the products and possible injury or damage.

⚠ WARNING: Charge only one lithium-ion rechargeable battery at a time. Other types of batteries may burst, causing personal injury or damage

- Do not use charger outdoors or expose to wet or damp conditions. Water entering charger will increase the risk of electric shock.
- Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons. Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- Do not abuse cord or charger. Never use the cord to carry the charger. Do not pull the charger cord rather than the plug when disconnecting from receptacle. Damage to the cord or charger could occur and create an electric shock hazard. If cord or charger is damaged, have the charger replaced by an authorized serviceman.
- Make sure cord is located so that it will not be stepped on, tripped over, come in contact with sharp edges or moving parts or otherwise subjected to damage or stress. This will reduce the risk of accidental falls, which could cause injury, and damage to the cord, which could result in electric shock.
- Keep cord and charger from heat to prevent damage to housing or internal parts.
- Do not let gasoline, oils, petroleum-based products, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic
- Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.
- An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on plug of extension cord are the same number, size and shape as those of plug on charger.
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is large enough for AC ampere rating of charger as specified below:

Cord Length (Feet)	25'	50'	100'
Cord Size (AWG)	16	16	16
- Do not operate charger with a damaged cord or plug, which could cause shorting and electric shock. If damaged, have the charger replaced by an authorized serviceman.
- Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. Take it to an authorized serviceman for electrical check
- to determine if the charger is in good working order.
- Do not disassemble charger. Take it to an authorized serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- Unplug charger from outlet before attempting any maintenance or cleaning to reduce the risk of electric shock.
- Disconnect charger from the power supply when not in use. This will reduce the risk of electric shock or damage to the charger if metal items should fall into the opening. It also will help prevent damage to the charger during a power surge.
- Risk of electric shock. Do not touch uninsulated portion of output connector or uninsulated battery terminal.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also to prevent misuse of the product and possible injury.

ASSEMBLY

BEFORE CHARGING:

⚠ **WARNING:** Do not use this product if it is not completely assembled or if any parts appear to be missing or damaged. Use of a product that is not properly and completely assembled or with damaged or missing parts could result in serious personal injury.

⚠ **WARNING:** Do not attempt to modify this product or create accessories or attachments not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury

CHARGER OPERATION

⚠ **WARNING:** Do not allow familiarity with products to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

⚠ **WARNING:** Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

APPLICATIONS

You may use this product for the following purpose:

- Charging BADGER 40 Volt lithium-ion batteries

⚠ **CAUTION:** If at any point during the charging process none of the LEDs are lit, remove the battery pack from the charger to avoid damaging the product. **DO NOT** insert another battery. Return the charger and battery to your nearest service center for service or replacement.

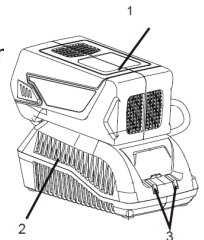
NOTICE: Charge in a well-ventilated area. Do not block charger vents. Keep them clear to allow proper ventilation.

CHARGING PROCEDURE:

Battery packs are shipped in a low charge condition to prevent possible problems. Therefore, you should charge them before first use. If the charger does not charge your battery pack under normal circumstances, return both the battery pack and charger to your nearest repair center for electrical check. Charge time varies and is dependent upon the amp hour capacity of battery pack.

NOTICE: Do not place the charger in an area of extreme heat or cold. It will work best at normal room temperature. The battery pack will become slightly warm to the touch while charging. This is normal and does not indicate a problem.

1. Plug charger into household outlet, make sure the power supply is normal household voltage, 120 Volts, AC only, 60 Hz.
2. Attach the battery pack to the charger by aligning the raised ribs on the battery pack with the grooves in the charger, then slide the battery pack or the charger.
3. Press down on the battery pack to be sure contacts on the battery pack engage properly with contacts in the charger. The green LED will flash as the battery charges.
4. After charging is complete, the green LED will remain on.
5. To remove the battery pack from the charger, slide back the battery pack.



CHARGER OPERATION

ONLY CHARGE WITH BADGER 40V 2A RAPID CHARGER (CGA402US).



CHARGING A HOT BATTERY PACK



When using a tool continuously, the battery pack may become hot. A hot battery pack should not be placed directly onto the charger port until the temperature cools to within acceptable temperature range. When a hot battery pack is placed on the charger, the red LED will turn on and the green LED will be off. Remove the battery for 30 minutes and allow to cool then place back on charger.



CHARGING A COLD BATTERY PACK



A cold battery pack may be placed directly onto the charger port but charging will not begin until the battery temperature warms to within acceptable temperature range. When a cold battery pack is placed on the charger, the red LED will turn on and the green LED will be off. When the battery pack warms the charger will automatically begin charging.

LED FUNCTIONS (40V 2.1A charger/40V5.1A charger)

BATTERY PACK	RED LED	GREEN LED	ACTION
 RED LIGHT  GREEN LIGHT	OFF	ON - FLASHING	Battery is charging.

 RED LIGHT  GREEN LIGHT	OFF	ON - SOLID	Battery is done charging, remove battery.
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 RED LIGHT  GREEN LIGHT	ON - SOLID	OFF	Battery is too warm/cold. Remove for approximately 30 minutes for temperature to fall within acceptable temperature.
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 RED LIGHT  GREEN LIGHT	ON - FLASHING	ON - FLASHING	Battery is defective, remove battery immediately and contact support.
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