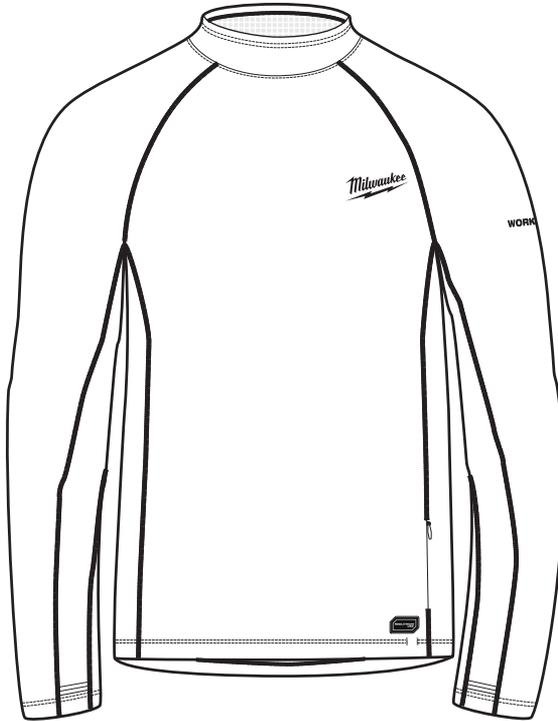




MANUAL



Cat. No. / No de cat.  
405 Series, 48-59-2005

**REDLITHIUM® USB RECHARGEABLE HEATED BASE LAYER,  
CHARGER/CONTROLLER, AND BATTERY PACK**



**WARNING** To reduce the risk of injury, user must read and understand operator's manual.

# IMPORTANT SAFETY INSTRUCTIONS

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

## SAVE THESE INSTRUCTIONS

### BATTERY AND CHARGER

- 1. THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS FOR THE REDLITHIUM® USB CHARGER AND REDLITHIUM® USB BATTERIES.**
- 2. CHARGE ONLY REDLITHIUM® USB BATTERIES IN THE REDLITHIUM® USB CHARGER. OTHER TYPES OF BATTERIES MAY CAUSE PERSONAL INJURY AND DAMAGE.**
- 3. BEFORE USING THE BATTERY AND CHARGER, READ THIS OPERATOR'S MANUAL, YOUR TOOL OPERATOR'S MANUAL, AND ALL LABELS ON THE BATTERY, CHARGER AND TOOL.**
- 4. USE ONLY WITH LISTED/CERTIFIED ITE POWER SUPPLY.** Others may result in a risk of fire, electric shock or personal injury.
- 5. AVOID DANGEROUS ENVIRONMENTS.** Do not charge battery in rain, snow, damp or wet locations. Do not use battery or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when inserting or removing battery, possibly causing fire.
- 6. CHARGE IN A WELL VENTILATED AREA.** Do not block charger vents. Keep them clear to allow proper ventilation. Do not allow smoking or open flames near a charging battery. Vented gases may explode.
- 7. MAINTAIN CORD.** When unplugging charger, pull plug rather than cord to reduce the risk of damage to the electrical plug and cord. Never carry charger by its cord. Keep cord from heat, oil and sharp edges. Make sure cord will not be stepped on, tripped over or subjected to damage or stress. Do not use charger with damaged cord or plug. Have a damaged charger replaced immediately.
- 8. USE ONLY RECOMMENDED ATTACHMENTS.** Use of an attachment not recommended or sold by the battery charger or battery manufacturer may result in a risk of fire, electric shock or personal injury.
- 9. TO REDUCE THE RISK OF ELECTRIC SHOCK,** always unplug charger before cleaning or maintenance.
- 10. DO NOT BURN OR INCINERATE BATTERY PACKS.** Battery may explode, causing personal injury or damage. Toxic fumes and materials are created when battery are burned.
- 11. DO NOT CRUSH, DROP, OR DAMAGE** battery. Do not use a battery or charger that has received a sharp blow, been dropped, run over, or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on).

- 12. DO NOT DISASSEMBLE.** Incorrect reassembly may result in the risk of electric shock, fire or exposure to battery chemicals. If it is damaged, take it to a MILWAUKEE service facility.
- 13. BATTERY CHEMICALS CAUSE SERIOUS BURNS.** Never allow contact with skin, eyes, or mouth. If a damaged battery leaks battery chemicals, use rubber or neoprene gloves to dispose of it. If skin is exposed to battery fluids, wash with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove and dispose of contaminated clothing.
- 14. DO NOT SHORT CIRCUIT.** A battery pack will short circuit if a metal object makes a connection between the positive and negative contacts on the battery pack. Do not place a battery pack near anything that may cause a short circuit, such as coins, keys or nails in your pocket. Do not allow fluids to flow into battery pack. Corrosive or conductive fluids, such as seawater, certain industrial chemicals, and bleach or bleach containing products, etc., can cause a short circuit. A short circuited battery pack may cause fire, personal injury, and product damage.
- 15. STORE YOUR BATTERY AND CHARGER** in a cool, dry place. Do not store battery where temperatures may exceed 120°F (50°C) such as in direct sunlight, a vehicle or metal building during the summer.

## HEATED GEAR

### WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.

### ELECTRICAL SAFETY

- **Do not expose heated gear to rain or wet conditions.** Water will increase the risk of electric shock.
- **Do not abuse the power cable. Never use the cord for carrying, pulling or unplugging the heated gear. Keep cord away from heat, oil, sharp edges or moving parts.**

### PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when using the heated gear. Do not use while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention may result in serious personal injury.

### PRODUCT USE AND CARE

- **Do not use the heated gear if the power button does not turn it on and off.** Any heated gear that cannot be controlled with the power button is dangerous and must be repaired.
- **Disconnect the battery pack from the heated gear before storing.** Such preventive safety measures reduce the risk of starting the heated gear accidentally.
- **Store out of the reach of children and do not allow persons unfamiliar with these instructions to operate the heated gear.** Heated gear can be dangerous in the hands of untrained users.
- **Maintain heated gear. Check for breakage of parts and any other condition that may affect the heated gear's operation. If damaged, have the heated gear repaired before use.**

•Use the heated gear in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the heated gear for operations different from those intended could result in a hazardous situation.

### SERVICE

•Have your heated gear serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the heated gear is maintained.

### SPECIFIC SAFETY RULES

Read instructions carefully.

Use:

- Do not use this heated gear with an infant, child, a helpless person, or anyone insensitive to heat, such as a person with poor blood circulation.
- If you have a medical condition making you sensitive to overheating, or you use any personal medical devices, consult the device manufacturer and/or your physician to determine if use of this product is appropriate.
- Never use if inner liner is wet.
- Heating elements are not recommended to touch bare skin.
- Shut off power immediately if discomfort occurs.
- Do not allow the cords to be pinched.
- If improper operation of this heated gear is observed, discontinue its use immediately and contact a MILWAUKEE service facility for repair.
- Do not use pins. They may damage the electric wiring.

Care:

- Before washing, disconnect and remove battery pack and battery holder from battery holder pocket. Push the power cord completely into the battery holder pocket and fasten closed.
- Follow Care Instructions on heated gear tags. Machine wash, gentle cycle in cold water. Tumble dry low heat.
- Do not use bleach or fabric softener.
- Do not iron.
- Do not wring or twist.
- Do not dry clean. Do not use dry-cleaning fluid on this heated gear. Do not bleach. Cleaning solvents may have a deteriorating effect on the insulation of the heating element.
- Always use common sense and be cautious when using tools. It is not possible to anticipate every situation that could result in a dangerous outcome. Do not use this tool if you do not understand these operating instructions or you feel the work is beyond your capability; contact Milwaukee Tool or a trained professional for additional information or training.
- Maintain labels and nameplates. These carry important information. If unreadable or missing, contact a MILWAUKEE service facility for a free replacement.

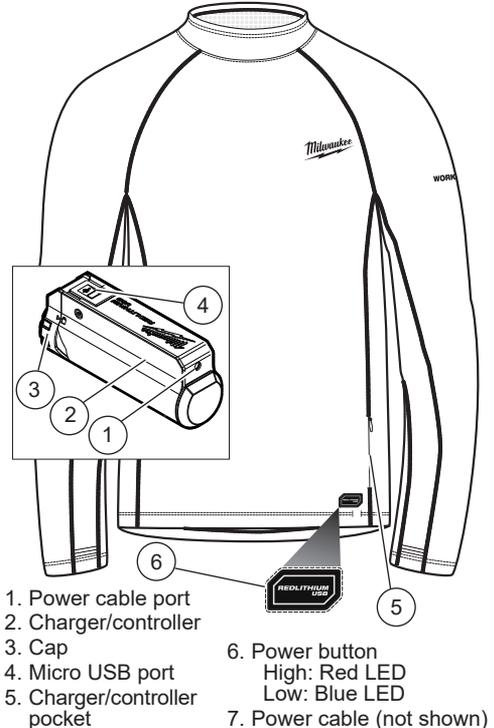
**READ AND SAVE  
ALL INSTRUCTIONS  
FOR FUTURE  
REFERENCE**

### SYMBOLOLOGY

	Volts
	Direct Current
	Amps
	Machine wash cold, gentle cycle
	Tumble dry, low heat
	Do not use bleach or fabric softener
	Do not iron
	Do not wring or twist
	Do not dry-clean
	Read Operators Manual
	Properly Recycle Batteries

**BFP** Backfeed Protected

### FUNCTIONAL DESCRIPTION



## SPECIFICATIONS

Charger/Controller Cat. No. ....	48-59-2005
Input Volts.....	5 DC
Input Amps.....	0.1 - 2.1 A
Output Volts.....	4 DC
<b>REDLITHIUM® USB Batteries</b>	
Volts.....	4 DC
Operating Temperature	
Battery and Charger ..	40°F to 104°F (4°C to 40°C)
Battery and Tool.....	0°F to 149°F (-18°C to 65°C)
<b>Power Supply Cat. No. ....</b>	<b>44-66-1202</b>
Wall Plug Input Volts.....	120 AC
<b>2 ft. USB Cable Cat. No. ....</b>	<b>44-66-1215</b>

## BATTERY

**⚠WARNING** To reduce the risk of fire, personal injury, and product damage due to a short circuit, never immerse your tool, battery pack or charger in fluid or allow a fluid to flow inside them. Corrosive or conductive fluids, such as seawater, certain industrial chemicals, and bleach or bleach containing products, etc., can cause a short circuit.

### Maintenance and Storage

Do not expose your battery or cordless tools to water or rain, or allow them to get wet. This could damage the tool and battery. Do not use oil or solvents to clean or lubricate your battery. The plastic casing will become brittle and crack, causing a risk of injury. Store batteries at room temperature away from moisture. Do not store in damp locations where corrosion of terminals may occur. As with other battery types, permanent capacity loss can result if the pack is stored for long periods of time at high temperatures (over 120° F). MILWAUKEE Li-Ion batteries maintain their charge during storage longer than other battery types. After about a year of storage, charge the battery as normal.

**⚠WARNING** To reduce the risk of injury or explosion, never burn or incinerate a battery pack even if it is damaged, dead or completely discharged. When burned, toxic fumes and materials are created.

### Disposing of MILWAUKEE Li-Ion Battery

MILWAUKEE Li-Ion batteries are more environmentally friendly than some other types of power tool batteries. Always dispose of your battery according to federal, state and local regulations. Contact a recycling agency in your area for recycling locations. Even discharged batteries contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery from shorting, which could cause a fire or explosion.

### RBRC Battery Recycling Seals

The RBRC™ Battery Recycling Seals (see "Symbology") on your batteries indicate that MILWAUKEE has arranged for the recycling of that battery with the Rechargeable Battery Recycling Corporation (RBRC). At the end of your battery's useful life, return the battery to a MILWAUKEE Branch Office/Service Center or the participating retailer nearest you.

## HEATED GEAR

**⚠WARNING** Use and charge only REDLITHIUM® USB batteries in this USB charger/controller. Other types of batteries may cause personal injury and damage.

### Inserting the Battery

1. Twist the cap and remove.
2. Line up the arrow on the battery with the arrow in the compartment and fully insert the battery.
3. Insert the battery and twist the cap on securely . When the battery is inserted, the indicator light will display the battery life:

Red Flashing: 0-3% remaining  
Red Solid: 3-10% remaining  
Yellow Solid: 11-49% remaining  
Green Solid: 50-100% remaining

### Charging the Battery

1. Plug your USB cable into a power source such as an AC wall adaptor, computer or car port.
2. Lift the rubber cover to expose the micro USB port. Insert the micro USB plug into the micro USB port.
3. The indicator light will display the charging status:  
Red Solid: Charging, 0-79% charged  
Green Flashing: Charging, 80-99% charged  
Green Solid: 100% Charged  
Red/Green Flashing: Damaged or Faulty Battery

If the light indicator flashes red and green, check that the battery is fully seated into the bay. Remove the battery and reinsert. If the light continues to flash red and green, the battery may be extremely hot or cold, or wet. Allow the battery to cool down, warm up, or dry out and then reinsert. If the problem persists, contact a MILWAUKEE service facility.

**⚠WARNING** To reduce the risk of injury, always unplug the charger and remove the battery from the charger before performing any maintenance. The charger and battery have no internal serviceable parts. Never disassemble the battery or charger.

### Maintenance and Storage

Store your charger in a cool, dry place. As a general practice, it is best to unplug battery chargers and remove batteries when not in use. No battery damage will occur, however, if the charger and battery are left plugged in.

**⚠WARNING** To reduce the risk of injury and damage, never immerse your battery or charger in liquid or allow a liquid to flow inside them.

### Cleaning

Clean out dust and debris from charger vents and electrical contacts by blowing with compressed air. Use only mild soap and a damp cloth to clean the battery and charger, keeping away from all electrical contacts. Certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around batteries, charger, or tools.

## OPERATION

Unzip the pocket and pull out the power cable. Plug the power cable into the port on the end of the charger/controller. Tuck the charger/controller into the pocket and zip closed.

To **turn on**, press and hold (1 to 2 seconds) the power button. The button will be turned to High and the red LED will light.

Temperature setting can be **adjusted** at any time by pressing the power button. Each press will cycle through the temperature settings.

To **turn off** the heated gear, press and hold (1 to 2 seconds) the power button. The LED will turn off.

If the heated gear turns off unexpectedly, check connections and charge the battery pack.

## HEATED GEAR CARE

**⚠WARNING** To reduce the risk of injury, always unplug the charger and remove the battery pack and charger/controller from the heated gear before performing any maintenance. Never disassemble the heated gloves, battery pack or charger. Contact a MILWAUKEE service facility for ALL repairs.

If the heated gear does not start or operate properly with a fully charged battery pack, clean the contacts on the battery pack. If the heated gear still does not work properly, return the heated gear, charger and battery pack, to a MILWAUKEE service facility for repairs.

**⚠WARNING** To reduce the risk of personal injury and damage, disconnect and remove battery pack and charger/controller from pocket before washing. Never immerse your charger/controller, battery pack, or charger in liquid or allow a liquid to flow inside them.

**To clean the heated gear:**

1. Remove battery pack and battery holder.
2. Push the power cord completely into the battery holder pocket and fasten closed.
3. Machine wash, gentle cycle in cold water. Do not use bleach. Do not dry clean. Do not wring or twist.
4. Tumble dry on low heat. Do not iron.