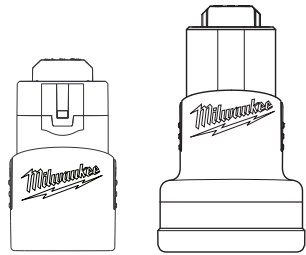
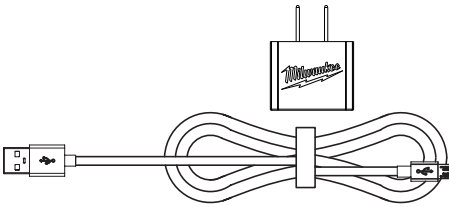
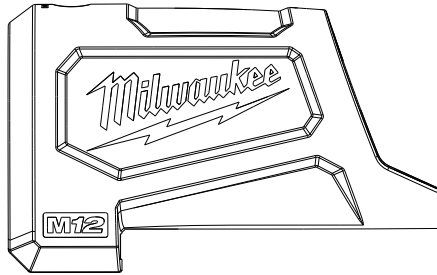




OPERATOR'S MANUAL



New batteries must be charged before first use.

Cat. No.
48-59-1201

M12™ COMPACT CHARGER AND POWER SOURCE M12™ LI-ION BATTERY PACKS



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

IMPORTANT SAFETY INSTRUCTIONS

AWARNING 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

- 1. SAVE THESE INSTRUCTIONS - THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS FOR THE MILWAUKEE M12™ COMPACT CHARGER AND POWER SOURCE CAT. NO. 48-59-1201 AND MILWAUKEE M12™ LI-ION BATTERIES.**
- 2. BEFORE USING THE BATTERY PACK AND CHARGER, READ THIS OPERATOR'S MANUAL, YOUR TOOL OPERATOR'S MANUAL, AND ALL LABELS ON THE BATTERY PACK, CHARGER AND TOOL.**
- 3. CAUTION TO REDUCE THE RISK OF INJURY, CHARGE MILWAUKEE M12™ RECHARGEABLE LI-ION BATTERIES ONLY IN MILWAUKEE M12™ LI-ION CHARGERS.** Other types of batteries may burst causing personal injury and damage. Do not wire a battery pack to a power supply plug or car cigarette lighter. Batteries will be permanently disabled or damaged.
- 4. USE MILWAUKEE LI-ION PACKS ONLY ON COMPATIBLE MILWAUKEE LI-ION TOOLS.** Battery pack and charger are not compatible with V™-technology or NiCd systems. Use with other tools may result in a risk of fire, electric shock or personal injury.
- 5. AVOID DANGEROUS ENVIRONMENTS.** Do not charge battery pack in rain, snow, damp or wet locations. Do not use battery pack or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when inserting or removing battery pack, 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 pack. Vented gases may explode.
- 7. MAINTAIN CHARGER 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. DO NOT USE AN EXTENSION CORD UNLESS IT IS ABSOLUTELY NECESSARY.** Using the wrong, damaged or improperly wired extension cord could result in the risk of fire and electrical shock. If an extension cord must be used, plug the charger into a properly wired 16 gauge or larger extension cord with pins that are the same number, size and shape as the pins on the charger. Make sure that the extension cord is in good electrical condition.
- 9. CHARGER IS RATED FOR 5 VOLT DC ONLY.** Charger must be plugged into an appropriate receptacle.
- 10. USE ONLY WITH UL LISTED/CERTIFIED CLASS 2 POWER SUPPLY.** Others may result in a risk of fire, electric shock or personal injury.
- 11. USE ONLY RECOMMENDED ATTACHMENTS.** Use of an attachment not recommended or sold by the battery charger or battery pack manufacturer may result in a risk of fire, electric shock or personal injury.
- 12. UNPLUG CHARGER** when not in use. Remove battery packs from unplugged chargers.
- 13. TO REDUCE THE RISK OF ELECTRIC SHOCK,** always unplug charger before cleaning or maintenance. Do not allow water to flow into AC/DC plug. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
- 14. DO NOT BURN OR INCINERATE BATTERY PACKS.** Battery packs may explode, causing personal injury or damage. Toxic fumes and materials are created when battery packs are burned.
- 15. DO NOT CRUSH, DROP, OR DAMAGE** battery pack. Do not use a battery pack 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).
- 16. 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.
- 17. BATTERY CHEMICALS CAUSE SERIOUS BURNS.** Never allow contact with skin, eyes, or mouth. If a damaged battery pack 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.
- 18. DO NOT SHORT CIRCUIT.** A short-circuited battery pack may cause fire, personal injury, and product damage. 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.
- 19. 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.
- 20. STORE YOUR BATTERY PACK AND CHARGER** in a cool, dry place. Do not store battery pack where temperatures may exceed 120°F (50°C) such as in direct sunlight, a vehicle or metal building during the summer.



Federal Communications Commission



Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 receiver.
- Consult the dealer or an experienced radio/TV technician for help.

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE REFERENCE.

SYMBOLGY

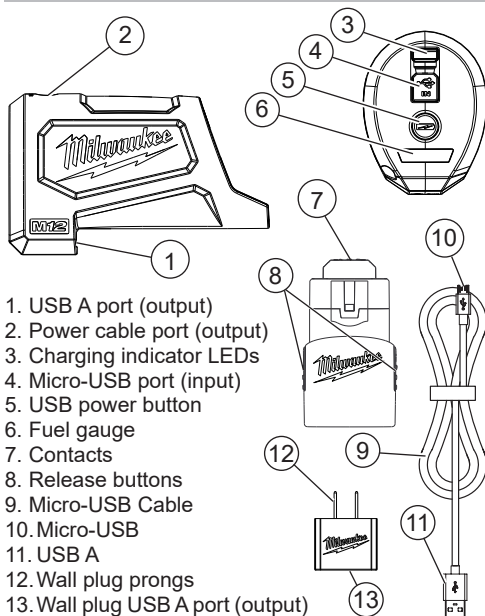
- V** Volts
- Direct Current
- A** Amps
- BFP** Backfeed Protected
-  Properly Recycle Batterie
-  Read Operator's Manual
-  UL Listing for Canada and U.S.

SPECIFICATIONS

Charger Cat. No.	48-59-1201
Input.....	5 VDC, 2.1 A
Output.....	12 VDC
USB Output	9 VDC, 1.6 A
	5 VDC, 2.1 A
Operating Temperature	
Battery and Charger	40°F to 104°F (4°C to 40°C)
Battery and Tool.....	0°F to 167°F (-18°C to 75°C)
Power Supply Cat. No*	44-66-1202
Wall Plug Input Volts.....	120 AC
M12™ Li-Ion Battery Packs	12 V DC

*Wall Plug and Micro-USB Cable available separately. Included with some kits.

FUNCTIONAL DESCRIPTION



1. USB A port (output)
2. Power cable port (output)
3. Charging indicator LEDs
4. Micro-USB port (input)
5. USB power button
6. Fuel gauge
7. Contacts
8. Release buttons
9. Micro-USB Cable
10. Micro-USB
11. USB A
12. Wall plug prongs
13. Wall plug USB A port (output)

MILWAUKEE LI-ION BATTERY PACKS

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 pack or cordless tools to water or rain, or allow them to get wet. This could damage the tool and battery pack. Do not use oil or solvents to clean or lubricate your battery pack. The plastic casing will become brittle and crack, causing a risk of injury.

Store battery packs at room temperature away from moisture. Do not store in damp locations where corrosion of terminals may occur. As with other battery pack 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 battery packs maintain their charge during storage longer than other battery pack types. After about a year of storage, charge the pack as normal.

Transport

Personal transport of Li-Ion battery packs is allowed when done in accordance with these warnings and instructions. The proper classification, packaging, labeling, marking, and documentation requirements for shipping Li-Ion batteries is dependent upon whether

the particular batteries are rated greater than or less than 100 Wh. Generally, Li-Ion batteries rated 100 Wh or less are "excepted" from certain Class 9 DG requirements. Always check compliance of Li-Ion battery consignments against the current regulations governing the chosen mode of transport. When in doubt, contact the carrier or other trained Dangerous Goods professional to confirm acceptability. Li-Ion packs are shipped under classification UN 3480 (battery only) or UN 3481 (batteries contained in or packed with equipment).

⚠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 Packs

MILWAUKEE Li-Ion battery packs are more environmentally friendly than some other types of power tool battery packs (e.g., nickel-cadmium). Always dispose of your battery pack according to federal, state and local regulations. Contact a recycling agency in your area for recycling locations.

Even discharged battery packs contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery pack from shorting, which could cause a fire or explosion.

RBRC Battery Recycling Seals

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

MILWAUKEE LI-ION CHARGER

CHARGING THE BATTERY

⚠WARNING Charge only MILWAUKEE 12V Li-Ion batteries in MILWAUKEE 12V Li-Ion Chargers. Other types of batteries may cause personal injury and damage.

When to Charge the Battery Pack with this MILWAUKEE Charger

Remove the battery pack from the tool for charging when convenient for you and your job. MILWAUKEE batteries do not develop a "memory" when charged after only a partial discharge. It is not necessary to run down the battery pack before placing it on the charger.

- Use the Fuel Gauge to determine when to charge your MILWAUKEE Li-Ion battery pack.
- You can "Top-Off" your battery pack's charge before starting a big job or long day of use.
- The only time it is necessary to charge the MILWAUKEE Li-Ion battery pack is when the battery pack has reached the end of its charge. To signal the end of charge, power to the tool will drop quickly, allowing you just enough power to finish making a cut, drilling a hole, or driving a fastener. Charge the battery pack as needed.

Charging the Battery Pack

1. Plug your USB A end of the cable into a power source such as an AC wall adaptor, computer or car port.
2. Insert the Micro-USB end of the cable into the Micro-USB port in the charger.
3. Insert the battery pack into charger. The indicator light will display the charging status:
 - Red: Charging
 - Green: Charged
 - Red Flashing: Battery is too hot or too cold
 - Red/Green Flashing: Damaged or Faulty Battery

- During charging, press the power button to display the current charge on the fuel gauge.
- USB A Port (for device charging) and DC out port (for powering heated gear) is shut down when the Micro-USB port is being used.
- A fully discharged battery pack with an internal temperature in the normal range will charge in about 130 to 525 minutes, depending on the battery pack.
- Heavily cycled batteries may take longer to charge completely.
- After charging is complete, the continuous green light will come on.
- The charger will keep the battery pack fully charged if it is left on the charger.
- The Red Flashing Indicator light on the charger indicates that the battery pack temperature is outside the charging range. Once the battery pack is within the acceptable range, normal charging will take place and the red light will be continuous. Hot or cold batteries may take longer to charge.
- If the light indicator flashes red and green, check that the battery pack is fully seated into the bay. Remove the battery pack and reinsert. If the light continues to flash red and green, the battery pack may be extremely hot or cold, or wet. Allow the battery pack to cool down, warm up, or dry out and then reinsert. If the problem persists, contact a MILWAUKEE service facility.
- If the light indicator does not come on, check that the battery pack is fully seated into the bay. Remove the battery pack and reinsert. If the light indicator still does not come on, remove pack and unplug charger for at least 2 minutes. After 2 minutes, plug charger back in and insert pack. If after these attempts the light indicator still does not come on, contact a MILWAUKEE service facility.

Maintenance and Storage

Store your charger in a cool, dry place. Unplug battery chargers and remove batteries when not in use. Do not store battery packs in the M12™ Compact Charger and Power Source.

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

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 pack 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.

Repairs

The charger has no serviceable parts.

ASSEMBLY

▲WARNING Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

Using with Heated Gear

To **insert** the battery, slide the pack into the body of the battery holder. Make sure it latches securely into place.

Insert the power cable (from inside the battery holder pocket) into the power cable port on the battery holder. Place the battery holder into the pocket and fasten closed.

To **remove** the battery, push in the release buttons and pull the battery pack away from the holder.

NOTE: USB A Port (for device charging) and DC out port (for powering heated gear) is shut down when the Micro-USB port is being used.

Using the USB A Port

The USB A port can be used to charge a cell phone, MP3 player, or other personal device that uses less than 5V, 2.1A of DC electrical current. The cord can be run from the battery controller pocket, through the grommet and channel on the interior of the vest, and through another grommet into a side pocket. It is not recommend to use the pocket warmer when an electronic device is charging in a pocket.

To turn on the USB, press the USB power button. The USB A port will remain on for two hours before turning off automatically.

NOTE: USB A Port (for device charging) and DC out port (for powering heated gear) is shut down when the Micro-USB port is being used.

Fuel Gauge

Press the USB power button to display the battery pack's remaining power.