

Packing and Shipping Instructions

Thank you for purchasing the GoRecycle battery and electronics recycling box. With your help, we are keeping used batteries out of landfills and reclaiming precious commodities for reuse in new products.

We have provided these instructions for your benefit and to ensure the safe storage and transportation of used batteries inside the GoRecycle box. Please read and follow all instructions carefully.

If you have any questions please email support@catalytic-innovations.com or call 1-573-263-5111. We are always eager to help!

Accumulation Starting Date

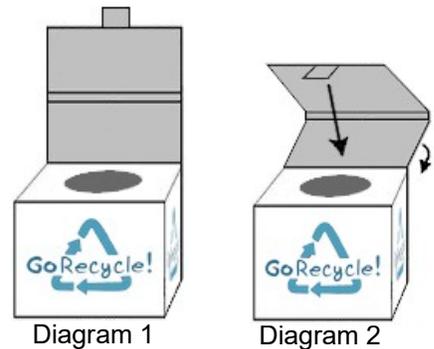
Find the section on the bottom of the GoRecycle box marked "Accumulation Starting Date" and record the date when the first battery is placed in the container with an ink pen or permanent marker.

EPA regulations require that the GoRecycle box is shipped within 1 year of the Accumulation Starting Date.

Setting Up the GoRecycle box

Take the following steps to setup the box as an attractive collection display.

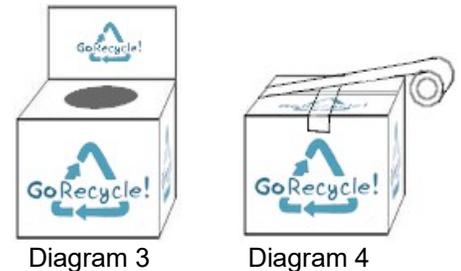
1. Remove instructions, labels, and tape from inside box.
2. Close top of box, but leave header flap open. (Diagram 1)
3. Bend header section back and fold at middle of the header. (Diagram 2)
4. Tuck header tab into base of header flap. (Diagram 3)



Closing and Sealing the GoRecycle box

When the box is filled and ready to be shipped, the following steps should be taken to seal the box before shipment back to our recycling facility.

1. Pull Header Back to lift tab.
(Box should now resemble diagram 2)
2. Close box with header tab secured into slot for tab.
3. Use **Packing tape** (Not included) to secure lid. (diagram 4)



Maximum Box Weight

The GoRecycle box is a safety tested container that has been certified to ship up to 50lbs of material. Boxes should never weigh more than 50 pounds when full, otherwise this certification will be invalidated. Catalytic Innovations reserves the right to charge an overweight shipping fee for those who ship boxes weighing more than the max weight of 50lbs.

Returning the GoRecycle box

To return the GoRecycle box, go to <https://gorecycle.catalytic-innovations.com/returns>, or scan the QR code on the bottom of the box with your phone camera.

Enter the serial number that is found on the bottom of the box (circled in picture) into the form on the website and follow the steps to print the return shipping label.

Fold or cut label to size, and affix the label to the bottom of the box in the designated area (pictured), covering the QR code and serial number with the shipping label.

Double check that the GoRecycle box is under 50 pounds and properly closed and taped for shipment, and drop off at any UPS shipping location!



Optional: Call 573-263-5111 to request shipping label manually (Business hours only).

Size Limitations

When transported in the GoRecycle box, batteries listed below are limited to the following sizes and smaller:

- Lithium Metal (Non-rechargeable) – 25 grams of lithium content per battery
- Lithium Ion (Rechargeable) – A rated capacity of 300 Wh (Watt-hours) per battery
- Lead-Acid (Non-Spillable) – A gross weight of 25 lbs. per battery

NOTE: Most consumer-style lithium metal and li-ion batteries fall within the size limitation above (e.g. laptop, power tool, etc.). For larger batteries, you may verify size requirements by visiting: <https://gorecycle.catalytic-innovations.com/instructions.html>

Battery Insulation

Batteries That Require Insulation:

Lithium Metal (non-rechargeable)
Lithium Ion (rechargeable)
Lead Acid (Non-Spillable)
Any Other Battery Over 9 Volts

Batteries that require insulation (listed to the left) must be protected against short circuits. Further, the means of protection used to prevent short circuits must remain in place while the GoRecycle box is in transit.

Suitable methods of protecting all of the batteries against short circuits and the dangerous evolution of heat include, but are not limited to, placing the batteries in individual plastic bags or covering the exposed terminals with clear tape (provided with your box).

No Insulation Required
AA, AAA, C, & D alkaline batteries
will always be under 9 volts

Prohibited Batteries

The following batteries are prohibited from being shipped in the GoRecycle box:

1. Batteries containing free-flowing electrolyte (e.g. automotive/motorcycle batteries).
2. Low production run and prototype batteries;
3. Damaged, defective or recalled batteries.

Markings Visible

The person offering this package to a motor carrier must notify the operator of the motor vehicle of the presence of batteries by ensuring all markings on bottom of the GoRecycle box are visible.

USED BATTERIES FOR RECYCLING OR
DISPOSAL. MAY CONTAIN LITHIUM (ION AND/
OR METAL) AND NONSPILLABLE BATTERIES.
FOR HIGHWAY OR RAIL FREIGHT ONLY -
FORBIDDEN FOR TRANSPORTATION
BY VESSEL OR AIRCRAFT



Miscellaneous Requirements

- Devices containing batteries must be protected against short circuits and unintentional activation.
- Packages must be stored away from heat.
- The gross weight of the package must not exceed 50 lbs. (22.68 kg).
- Packages must be securely closed prior to being offered for transportation.
- This package is only authorized to ship batteries and battery-containing devices for recycling.

BATTERY PACKAGING REQUIREMENTS

The Department of Transportation has authorized the shipment of batteries using the GoRecycle box pursuant to DOT Special Permit 20928. The safety requirements of SP-20928 are summarized below. The complete Special Permit can be found at <https://gorecycle.catalytic-innovations.com/sp20928.html>

For more information on the above requirements email support@catalytic-innovations.com, call 573-263-5111, or visit <https://gorecycle.catalytic-innovations.com>

LITHIUM BATTERY INFORMATION

The Department of Transportation has authorized the shipment of Lithium Metal (Non-Rechargeable) and Lithium Ion (Rechargeable) batteries using the GoRecycle box pursuant to DOT Special Permit 20928. The complete Special Permit can be found at <https://gorecycle.catalytic-innovations.com/sp20928>

Special Permit 20928 limits Lithium Metal and Lithium Ion batteries transported to the following sizes:

- Lithium Metal (Non-rechargeable) – 25 grams of lithium content or less per battery
- Lithium Ion (Rechargeable) – A rated capacity of 300 Wh (Watt-hours) or less per battery

Most consumer-style lithium metal and li-ion batteries (see below) fall within these size limitations.

Acceptable Lithium Batteries

- Li-Ion Laptop Battery (Dia 5)
- Li-Ion Cell Phone Battery (Dia 5)
- Li-Ion Power Tool Battery (Dia 5)
- Lithium Primary Button Cell (Dia 6)
- Lithium Primary AA, AAA, (Dia 6)

UN3480



Diagram 5

UN3090



Diagram 6

UN3481



Diagram 7

UN3091



Diagram 8

For batteries larger than the common consumer types shown above, customer should verify whether batteries can be shipped pursuant to Special Permit 20928.

SEE PAGE 5 FOR INSTRUCTIONS TO DETERMINE BATTERY SIZE
OR CONTACT CATALYTIC INNOVATIONS FOR ASSISTANCE AT 573-263-5111

Disclaimer: This document is provided for your convenience. Customer remains responsible for complying with all shipping regulations, including the proper determination of battery size. Catalytic Innovations assumes no liability by providing the information herein.

Handling Mark Instructions

IMPORTANT: Read and follow these instructions to comply with DOT safety regulations for shipping used batteries.

- Affix included handling mark (Diagram 10) to the designated area on the bottom of the box **ONLY** if package includes lithium metal or lithium ion batteries.

- Cross out UN numbers on handling mark that don't apply (As in Example 1: Diagram 11). The UN number definitions can be found in 49 CFR § 173.185. Simplified explanations are outlined below.

Rechargeable Lithium

1. UN3480 – Lithium Ion Batteries. This includes rechargeable lithium batteries usually taken from cell phones and laptops. (Dia. 5)
2. UN3481 – Lithium Ion Batteries contained **in equipment**. This includes electronics with rechargeable batteries in them such as cell phones and tablets. (Dia. 7)

Single-Use Lithium

3. UN3090 – Lithium Metal Batteries. This includes single use lithium batteries such as digital camera batteries, hearing aid batteries, and non-rechargeable lithium AA/AAA batteries. (Dia. 6)
4. UN3091 – Lithium Metal Batteries contained **in equipment**. This includes small non-rechargeable electronics that include lithium button cell batteries, such as children's watches, thermometers, or key fobs. (Dia. 8)



Diagram 10



Diagram 11

Example 1: You mostly fill the box with alkaline batteries, but include a couple old cell phones (UN3481) and some lithium batteries for flashlights (UN3090). You place the handling mark on the **designated area on the bottom of the box** and cross out the two numbers that don't apply (UN3480, UN3091). (Diagram 11)

Example 2: You fill the GoRecycle box with alkaline batteries and rechargeable nickel batteries (Ni-Cad, NiMH), which do not require the handling mark, so you do not use the handling mark sticker at all.

To Calculate Lithium Metal or Lithium Ion Battery Size

The formula used to determine **Lithium Metal** content is:

Ah per battery x 0.3 grams

- NOTE: Many batteries are not rated in Ampere hours (Ah), but instead in milliamperes hours (mAh). To determine the Ah, divide the mAh by 1,000.

The formula used to determine **Lithium Ion** rated capacity is:

Volts x ampere hour (Ah) = watt hours

- NOTE: Many batteries are not rated in Ampere hours (Ah), but instead in milliamperes hours (mAh). To determine the Ah, divide the mAh by 1,000.

Single-Use (Lithium Metal) Battery Example Calculation:

The battery you wish to ship is rated at 2400 mAh:

1. Divide 2400 mAh by 1,000 to get the rating in Ah:
 $2400 \text{ mAh} \div 1,000 = 2.4 \text{ Ah}$
2. Multiply the Ah by 0.3 gm to determine the amount of Lithium:
 $2.4 \text{ Ah} \times 0.3 \text{ gm} = 0.72 \text{ grams of lithium in each cell}$

Conclusion: 2.88 g is below the 25 g limit and can be shipped in the GoRecycle box.

Rechargeable (Lithium Ion) Battery Example Calculation:

The battery pack you wish to ship is rated at 12 volts and 4,000 mAh:

1. Divide 4,000 mAh by 1,000 to get the rating in Ah:
 $4,000 \text{ mAh} \div 1000 = 4.0 \text{ Ah}$
2. To determine the watt hours in this battery, multiply 12 volts by 4.0 Ah:
 $12 \text{ V} \times 4.0 \text{ Ah} = 48 \text{ Wh}$

Conclusion: 48 Wh is well below the 300 Wh limit and may be shipped in the GoRecycle box.

Disclaimer: This document is provided for your convenience. Customer remains responsible for complying with all shipping regulations, including the proper determination of battery size. Catalytic Innovations LLC assumes no liability by providing the information herein.