



# Customer Bulletin

Commercial Products

June 11, 2020

## Electrical System Inspection and Maintenance

Groundsmaster® 4500 and 4700

**Bulletin Type** Information Only

**Status** Final Release

### Affected Units

Model Number(s)	Serial Number(s)
30857	290000001 through 314999999
30857N	313000001 through 314999999
30858	290000001 through 314999999
30858N	313000001 through 314999999

**Situation** Important Information

Proper battery replacement and battery cable routing are critical to the safe and reliable performance of Toro Commercial products. Varying from the recommended battery and electrical system maintenance published in both the machine *Operator's Manual* and *Service Manual*, could cause machine downtime or even serious damage.

Over time, repair actions such as battery removal or replacement have deviated from the *Operator's Manual* and *Service Manual* information, which could result in battery cable exposure. If the B+ (Positive) battery cable becomes loose or repositioned, it may lead to contact abrasion, and the potential for conductor corrosion or a short to ground that could lead to other potential damage.

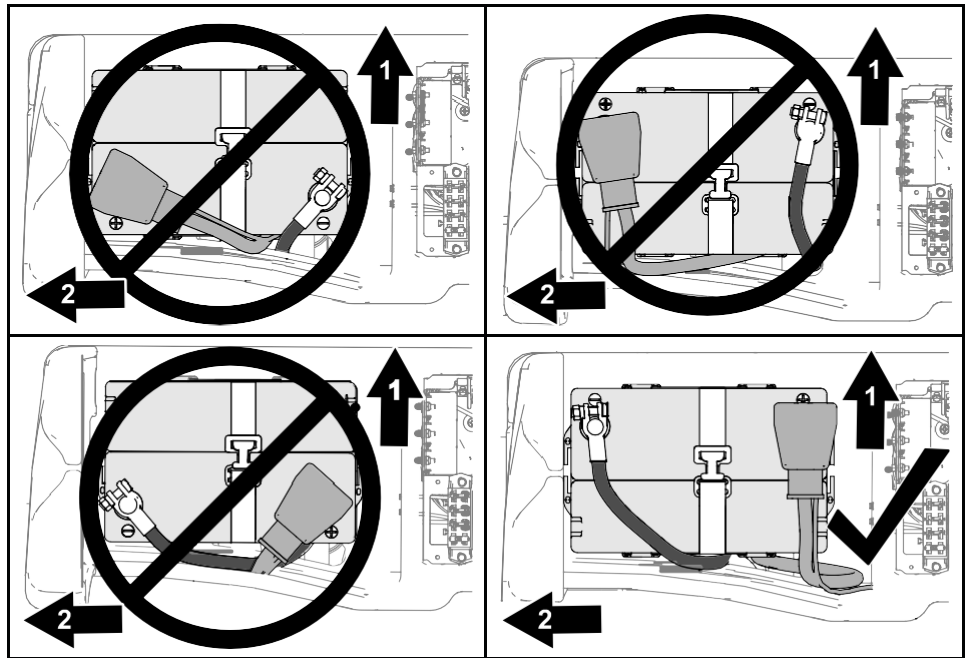
**Corrective Action** Inspect

**Important: Incorrect battery cable routing could damage the machine and cables causing sparks. Sparks can cause the battery gasses to explode, resulting in personal injury.**

1. Inspect the battery to ensure that the correct BCI Group 24 is installed. Refer to the *Parts Catalog* for the machine.

**Important: Batteries that do not meet the correct BCI specification should be replaced with the correct battery.**

2. Ensure that the battery terminals align toward the front of the machine.



**Figure 2**

1. Front of the machine

2. Centerline of the machine

3. Ensure that the battery hold-down strap is not damaged or worn, and it properly secures the battery.
4. Inspect the battery cable routing to ensure that all cable ties fully secure the positive and negative battery cables.
5. Inspect the convoluted tubing covering the positive battery cable for damage or wear. Ensure that the tubing is secure and correctly routed.
6. Inspect the battery cables for damaged or worn insulated covering as follows:
  - Look at all static points of contact (contact made when the machine is not running).
  - Look for dynamic points of contact (contact made while machine operates—such as starting the engine, and lifting or lowering the cutting units).
7. If the convoluted tubing or insulated covering of the positive or negative battery cable is worn, cable replacement is recommended; refer to the Parts section of this service bulletin.
8. Make an overall inspection of the machine wire harnesses, harness routing, and harness retention with specific focus to areas at dynamic points of contact.

**Note:** To avoid potential machine downtime consider the electrical repairs:

- replacing loose or missing cable ties
- replacing worn or damaged convoluted tubing
- repairing individual harness wires to avoid replacing the wire harness

## Safety Awareness

Follow reasonable and customary safety precautions.

Before making any electrical repairs, always perform the following safety steps:

- Wear protective clothing and use insulated tools.
- Disconnect the battery before repairing the machine.
- Disconnect the negative battery cable from the battery first, then disconnect the positive battery cable.
- When connecting the battery cables, connect the positive battery cable to the battery first, then the negative battery cable.

## Parts

Will be available: May 28, 2020

**Note:** The replacement positive battery cable has not changed, but is now part of a positive battery cable kit that includes the recommended routing and retention instructions.

The negative battery cable part number remains the same; the replacement part number is given for reference only.

Toro Part No.	Part Description	Quantity Per Machine
136-3490	Battery cable kit	1

## References

Download the latest versions of the operator's manual, parts catalog, installation instruction, electrical schematic, and hydraulic schematic. Visit [www.Toro.com](http://www.Toro.com), click the Manuals link on the home page, and search for product information using the machine-model number or kit part number.

Resource	Search Term
<i>Operator's Manual</i>	Model and serial number for the machine.
<i>Parts Catalog</i>	Model and serial number for the machine.
<i>Battery Cable Kit Installation Instructions</i>	136-3490