BIN·SENSE™

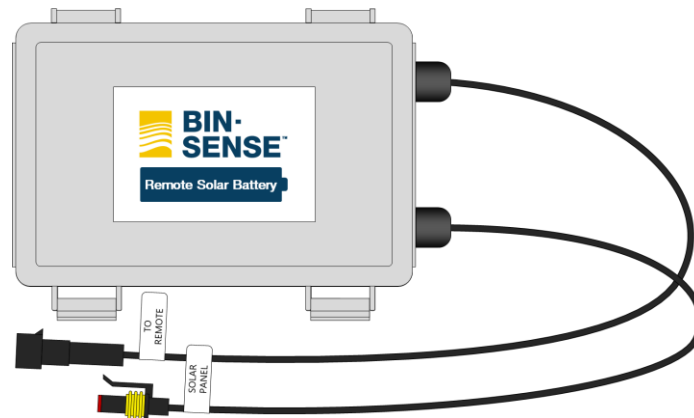# Remote Solar Battery Installation And Operation

The Bin-Sense Remote Solar Battery (RSB) (item number RSBU-107201-U) is a self-contained rechargeable battery and solar charge controller that eliminates the need to replace AA batteries in Bin-Sense Remote units. It connects between the existing external solar panel and the Remote unit and includes magnetic feet for tool-free installation. It can also be connected to legacy Bin-Sense Remote units (manufactured before 2022) by adding a Remote Combination Cable and an external solar panel (available as a bundle with item number RSBB-107201-B).

INSTALLATION NOTES

- The Remote Solar Battery connects between a Bin-Sense Remote unit and solar panel. Install the RSB on the bin near the Remote unit so that the link cables can reach the Remote unit and solar panel.
- Ensure the solar panel is pointed south for maximum solar exposure. When possible, install the solar panel so that it is elevated above the bin roof ribs and angled appropriately.
- Ensure the location of the RSB does not interfere with normal use of the grain bin (e.g. not in the way of the lid, blocking the ladder, etc.)
- It is recommended to finalize installation the installation by tidying any loose link cables and securing them with p-clips.
- After installation, change settings on the Bin-Sense app or website to mark the bin as powered by a Remote Solar Battery to prevent inaccurate low voltage alerts.
- It is recommended to leave the existing AA batteries installed and connected in the Remote unit.
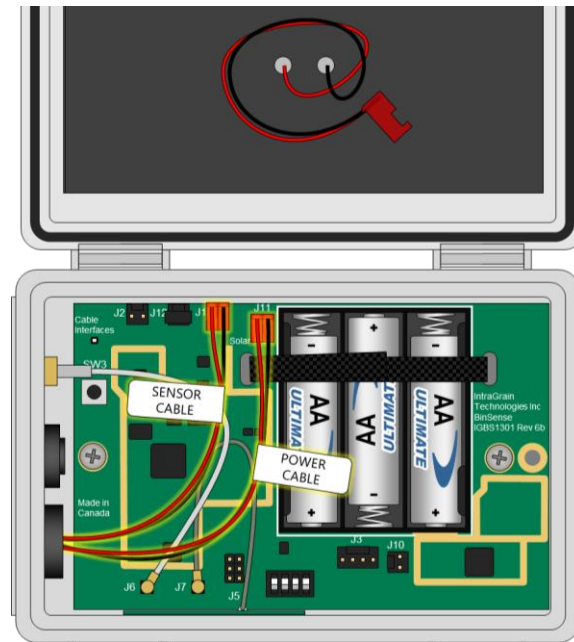

WARNING: FALL HAZARD - EXTREME CARE AND CAUTION MUST BE USED WHEN CLIMBING IN A BIN OR SILO. BE SURE TO USE APPROVED SAFETY PROCEDURES AND MATERIALS. WHEN WORKING ABOVE 1.2 METERS, WEAR A SAFETY HARNESS OR PERSONAL PROTECTIVE EQUIPMENT. AN APPROVED TOOL BELT MUST BE WORN TO KEEP BOTH HANDS FREE WHEN CLIMBING UP AND DOWN A LADDER.

INSTALLATION

1. Mount the Remote Solar Battery on the bin with the cable grips pointed downward (red sticker end up).
2. Disconnect the solar panel from the "Solar Panel" link cable of the Remote unit.
3. Connect the "To Remote" link cable of RSB to the "Solar Panel" link cable of the Remote unit.
4. Connect the "Solar Panel" link cable of the RSB to the solar panel.

INSTALLATION (LEGACY REMOTE UNITS WITH INTERNAL SOLAR PANEL)

1. Mount the Remote Solar Battery on the bin with the cable grips pointed downward (red sticker end up).
2. Disconnect the sensor link cable from the sensing cable(s) installed in the bin.
3. Inside the Remote unit, disconnect the existing link cable from the J1 connection of the circuit board, and disconnect the internal solar panel from the J11 connection.
4. Use a 15 mm and a 19 mm wrench to remove the existing sensor link cable from the Remote enclosure.
5. Place the new Remote Combination cable through the existing hole in the Remote unit enclosure. Route the nut over the two internal wire connections and finger-tighten to secure the cable grip in place.
6. Tighten the nut half a turn using a 19 mm wrench while holding the cable grip stationary outside the enclosure with a 15 mm wrench.
7. Inside the Remote unit, connect the "Sensor Cable" wires to J1, and the "Power Cable" wires to J11 as shown in the diagram below.
8. Connect the sensing cables installed in the bin to the "Sensor" link cable of the combination cable.
9. Connect the "To Remote" link cable of RSB to the "Power" link cable of the combination cable.
10. Connect the "Solar Panel" link cable of the RSB to the solar panel.

LED STATUS

The circuit board in the Remote Solar Battery includes an LED light that tells the status of the unit.

- Red indicates that solar power is available and the battery is charging.
- Green indicates that solar power is available and the battery is fully charged.
- LED off indicates that solar power is not available and the battery is in use.