In situations when there is heavy voice traffic on the system or where access to the site is limited, NIRSC recommends a double-battery system to avoid power failure during the incident. Even with a double battery system, voltage should be checked or batteries replaced every 7 days. *(See Figure 2)*

Solar Panel Kits (NFES# 004080) are available from NIRSC and are recommended for use at sites with limited access. Contact the CDO for Solar Panel Kit availability before ordering.

*Figure 1:*
+12V Single SLA Battery used for radio and handsets in the 4330 Remote Kits and the 4330EX Expansion Kits.

*Figure 2:*
+12V Double SLA Battery Parallel Configuration used to power the 4312, 4248, 4370, and the 4281 Kits
All 4312, 4248, 4330, 4370 and 4248 kits will be sent from NIRSC without any batteries physically connected to the equipment. The user must install the batteries from the NFES# 4150 SLA Battery Kit to make them operational. Please follow the appropriate battery configuration and installation procedure for each piece of equipment.

1. **Supplied Materials**
   - 1 each 4150 - SLA Battery Kit
   - 35 AMP-HR SLA Battery X 2
   - Red and black jumpers
   - Power-Pole Cable Assembly
   - Connecting hardware
   - Electrical Tape (not shown)

2. **Configuring the batteries** *(See Figure to the Left)*
   - Ensure both batteries are fully charged
   - Place both SLA batteries inside the kit as shown
   - Configure the SLA batteries in parallel with jumpers
     - Jumper the red (Positive) to red (Positive)
     - Jumper the black (Negative) to black (Negative)
   - Connect the Power-Pole cable assembly to Red (Positive) and black (Negative)

3. **Battery Protection**
   - Cover the terminals with supplied cover to prevent accidental short circuits.

   **Note:** Always remove the batteries from each kit before transporting or shipping back to NIRSC.

   !!!WARNING!!!
   Never install batteries with the terminals facing each other!
4330/4330EX SLA BATTERY INSTALLATION

All 4312, 4248, 4330, 4370 and 4248 kits will be sent from NIRSC without any batteries physically connected to the equipment. The user must install the batteries from the NFES# 4150 SLA Battery Kit to make them operational. Please follow the appropriate battery configuration and installation procedure for each piece of equipment.

1. Supplied Materials
   ● 1 each 4150 - SLA Battery Kit
   ● 35 AMP-HR SLA Battery X 2
   ● Red and black jumpers
   ● Power-Pole Cable Assembly
   ● Connecting hardware
   ● Electrical Tape (not shown)

   Note: Fused Battery adapter are included in each 4330 kit

2. Configuring 4330 Radio Chassis Battery
   ● Ensure SLA battery is fully charged
   ● Place the SLA battery outside the chassis as shown
   ● Connect the SLA battery to chassis power input using the provided fused battery adapter
   ● Connect the fused battery adapter to the SLA battery as shown Red (+) and black (-)

   Note: Always remove the batteries from each kit before transporting or shipping back to NIRSC.

3. Configuring 4330 Handset Battery
   ● Ensure SLA battery is fully charged
   ● Place the SLA battery in close proximity to handset
   ● Connect the SLA battery to the handset power input using the provided fused battery adapter
   ● Connect the fused battery adapter to the SLA battery as shown Red (+) and black (-)

   Note: Always remove the batteries from each kit before transporting or shipping back to NIRSC.
1. Battery Charger Configuration
   - Plug A/C Plug on battery charger to electrical outlet
   - Select “12V” using the upper “SELECT” button
   - Select “AGM/FLOODED” using the lower “SELECT” Button

2. Battery Terminal Configuration
   - Connect the charging clips to the SLA Battery
     *Note the Polarity, Red Clip (+) and Black Clip (-)*
   - A completely discharged battery will take about 10-hours to fully charge.
   - Battery is charged when the charge indicator light is green

!!!!WARNING!!!!!
- The terminals on the SLA batteries are exposed and can be prone to accidental short circuiting during transportation.
- SLA batteries will discharge much more violently in the event of a short circuit compared to alkaline batteries.
- Always take appropriate precautions to ensure the terminals are protected with electrical tape, covers or other non-conductive material to prevent short circuits while transporting SLA batteries.
- **DO NOT** transport repeaters or other equipment with SLA batteries installed. Use original packaging to transport SLA batteries to and from mountain top locations.
- When transporting SLA batteries, remove all jumper wires and cables.
- **DO NOT** connect a dead battery to a fully charged battery.