

Spreader and Vehicle Battery Kits

Hopper Spreaders

Parts Lists and Installation Instructions

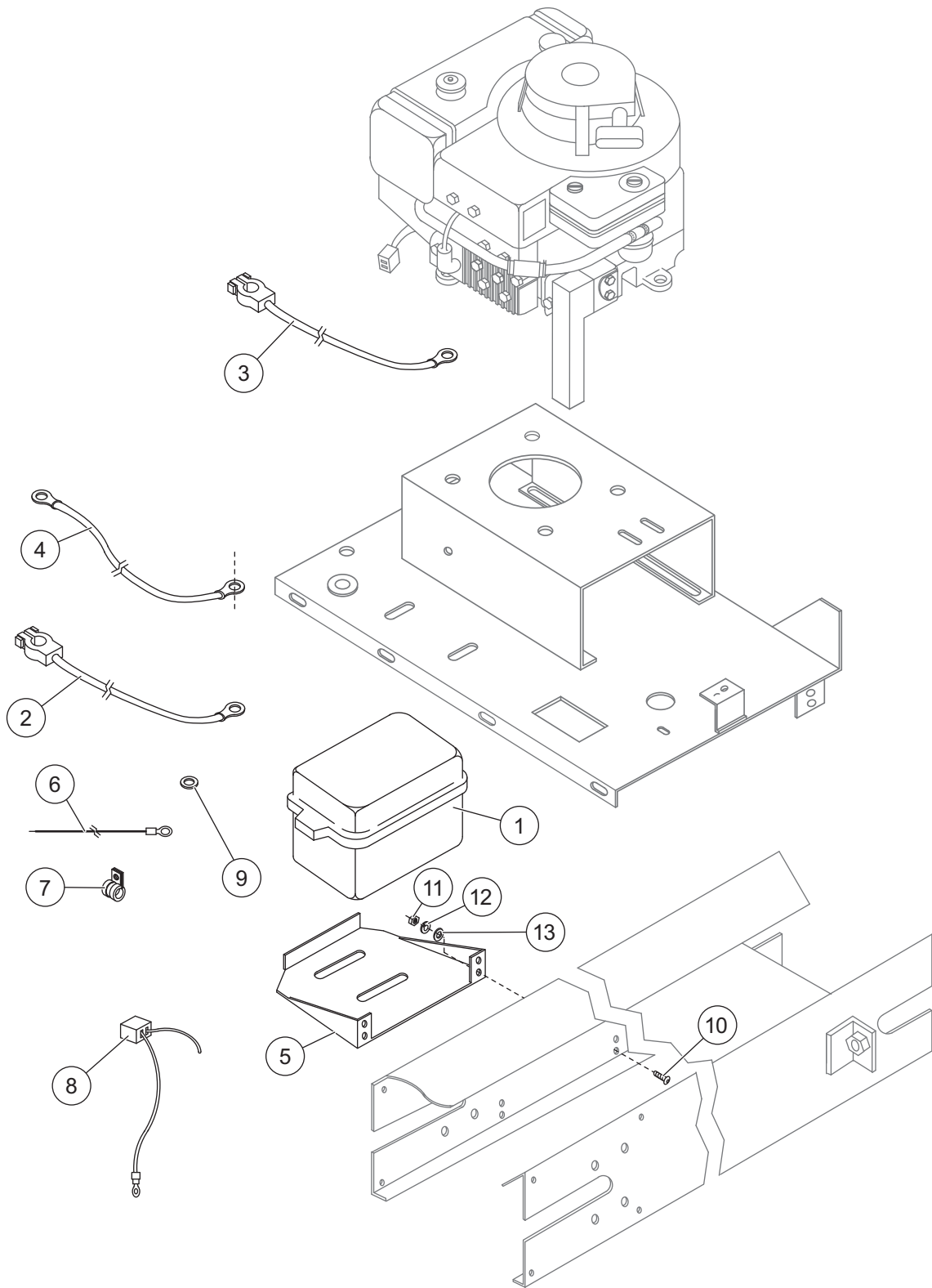
⚠ CAUTION

Read this document before installing the
Spreader and Vehicle Battery Kit.

⚠ CAUTION

Use standard methods and practices when
attaching spreader and installing accessories,
including proper personal protective safety
equipment.

SPREADER AND VEHICLE BATTERY KITS PARTS LIST



SPREADER AND VEHICLE BATTERY KITS PARTS LIST

65605 Spreader Battery Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	65251/65251	1	Battery Case w/Strap	5	65800	1	Battery Tray
2	65246/9226	1	Battery Cable – Red (Positive)	6	68869	1	Hopper Spreader Ground Wire
3	67239	1	Battery Cable – 53" Black	ns		1	Parts Bag
4	65247/9227	1	Cable, Starter				
65990 Parts Bag							
7	65340	2	Clamp Loop #10	11	91431	4	3/8-16 Hex Nut SS
8	65380/20194	1	Alternator Wire – Red w/Plug	12	91123	4	3/8 Flat Washer SS
9	90980	1	5/16 Flat Washer SS	13	91282	4	3/8 Spring Lock Washer SS
10	90375	4	3/8-16 x 1 Carriage Bolt				
ns = not shown				SS = Stainless Steel			

65606 Vehicle Battery Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
ns	65573	1	Vehicle Cable	ns	67537	1	Relay Wire – White (Premium Cab Control)
ns	65574	1	Spreader Cable				
ns	22511	1	Battery Cable – 22" Red	ns	65989	1	Parts Bag
65989 Parts Bag							
ns	65340	2	Clamp Loop #10	ns	65384	1	Relay Wire – White (Standard Cab Control)
ns	59223	4	Cable Tie				
ns	61548K/8291K	1	Plug Cover	ns	90461	2	1/4-20 x 3/4 Hex Cap Screw G5
ns	49304K/62057	1	Hook	ns	91331	2	1/4-20 Hex Locknut GB
ns	22381W/22381K	1	Battery Cable Adapter	ns	91262	2	1/4 External Tooth Lock Washer
ns = not shown				G = Grade			

SPREADER BATTERY KIT INSTALLATION INSTRUCTIONS

SPREADER BATTERY KIT INSTALLATION

NOTE: Apply dielectric grease to all electrical terminals before assembly.

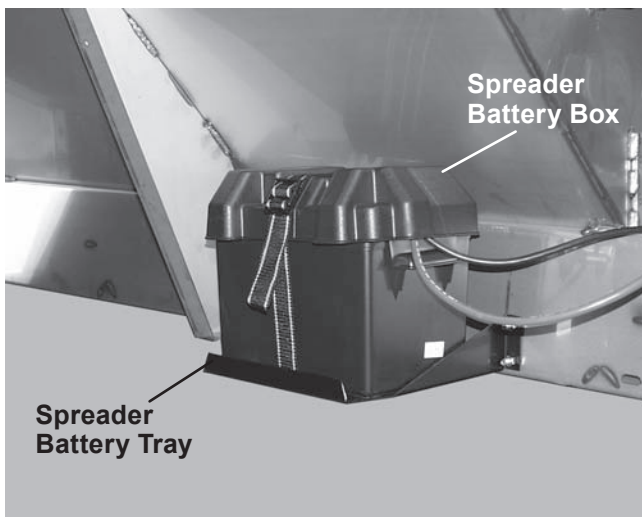
Battery Safety

⚠ CAUTION

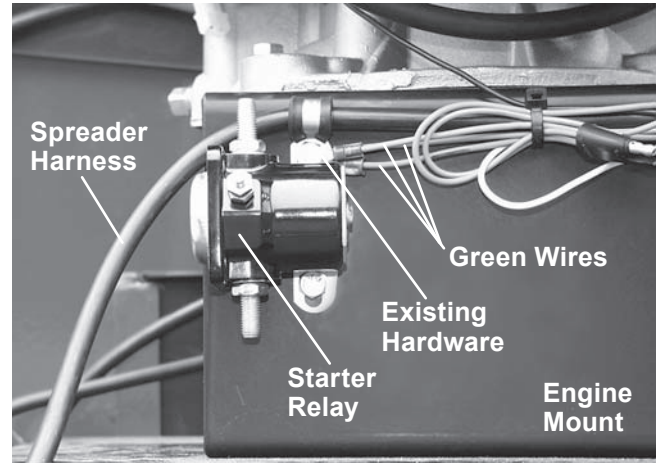
Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- Batteries contain sulfuric acid, which burns skin, eyes and clothing.
- Disconnect the battery before removing or replacing any electrical components.

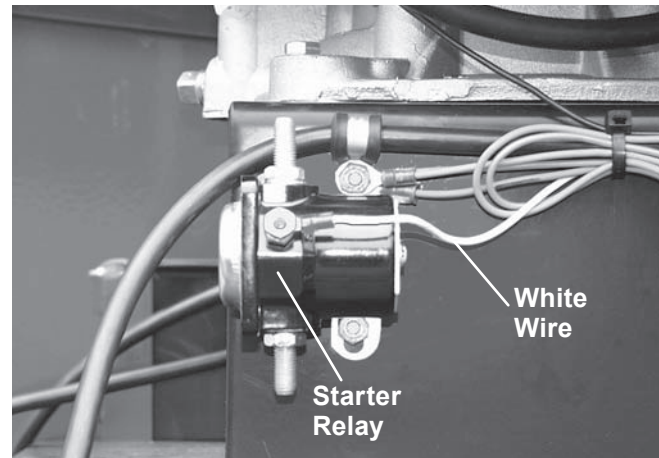
1. Install the battery tray with the four supplied 3/8" x 1" carriage bolts, flat washers, lock washers and nuts.
2. Install a 12-volt battery with a minimum of 400 cold cranking amps rating. The battery box will accept any group 22-, 24-, 27-, 64- or 65-series top-terminal battery.



3. Mount the starter relay to the engine mount using the existing hardware and an additional 1/4" x 3/4" cap screw, external tooth lock washer, and nut. Reconnect the three green wires, the spreader harness, and the #6 clamp loop to the upper starter relay mounting bolt.

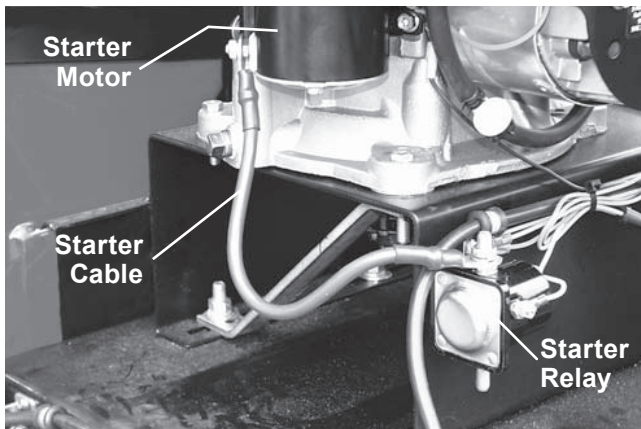


4. Connect the white wire from the spreader harness to the primary terminal of the starter relay.

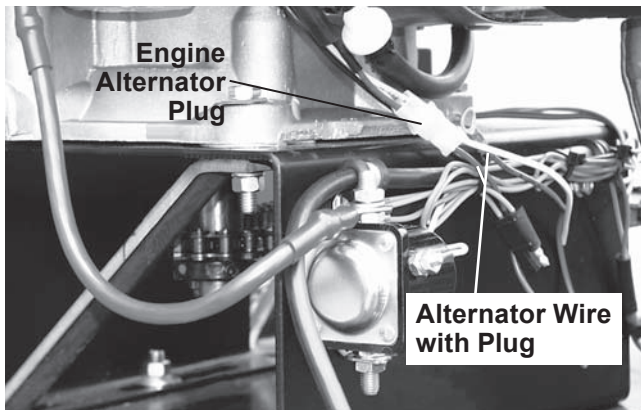


SPREADER BATTERY KIT INSTALLATION INSTRUCTIONS

5. Connect the starter cable from the starter to one of the large secondary terminals on starter relay.

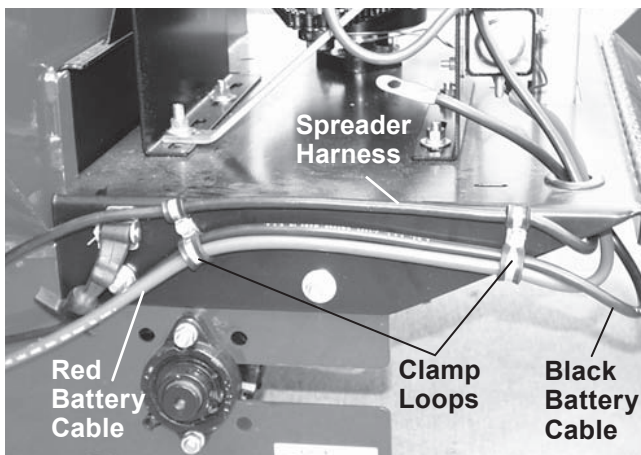


6. Connect the alternator wire with plug to the alternator plug on the engine.



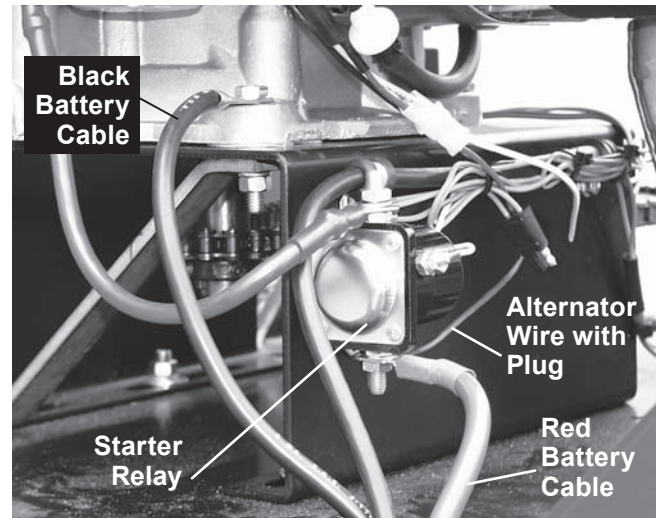
7. Route the battery cables as shown. Secure with #10 clamp loops.

NOTE: Use the fasteners that secure the spreader harness for securing the spreader cable.



8. Connect the alternator wire with plug and the red battery cable to the unused secondary terminal of the starter relay.

NOTE: The white alternator wire is not used.



9. Connect the red battery cable to the POSITIVE (+) terminal of the battery.
10. Attach one end of the black battery cable to the spreader engine mounting flange using the existing 5/16" cap screw, nut, lock washer, and supplied flat washer.
11. Attach the supplied green spreader ground wire to the spreader in a convenient location. Attach the other end of the spreader ground wire to a convenient ground point on the truck.

NOTE: When installing a hopper spreader with a spreader battery kit, a ground must be provided between the spreader and the truck.

12. Connect the unused end of the black battery cable to the NEGATIVE (-) terminal of the battery.

VEHICLE BATTERY KIT INSTALLATION INSTRUCTIONS

VEHICLE BATTERY KIT INSTALLATION

Battery Safety

⚠ CAUTION

Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

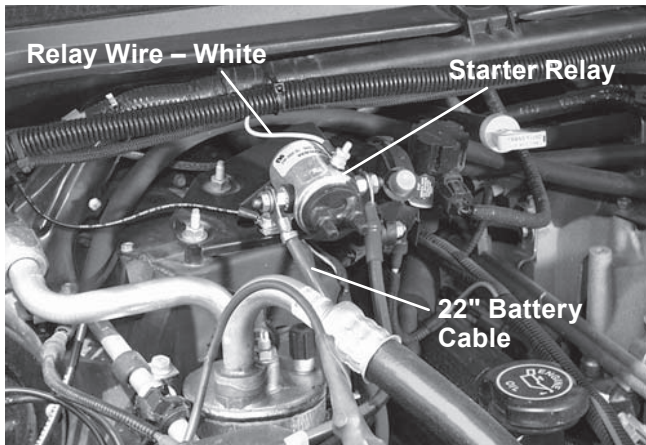
- Batteries contain sulfuric acid, which burns skin, eyes and clothing.
- Disconnect the battery before removing or replacing any electrical components.

NOTE: Apply dielectric grease to all electrical terminals before assembly.

Battery

1. Verify that vehicle battery is in good condition.
2. Disconnect the ground cable from the battery.

Starter Relay



1. For the starter relay, locate an area protected from road splash and within 18" of the vehicle's primary battery. The mounting surface needs to be grounded.

NOTE: If a grounded surface is not available, install a 16-gauge wire (not supplied) between a known ground and the starter relay mounting flange after starter relay installation.

⚠ CAUTION

Before drilling holes, check to be sure that no vehicle wiring or other components could be damaged.

2. Using the starter relay mounting flange as a template, drill two 9/32" holes and fasten with two 1/4" x 3/4" cap screws, lock washers and nuts.

Battery Cable

1. Install the 22" red battery cable to one of the large secondary terminals of the starter relay and the POSITIVE (+) battery terminal.

NOTE: A battery cable adapter kit is provided for side-terminal batteries.

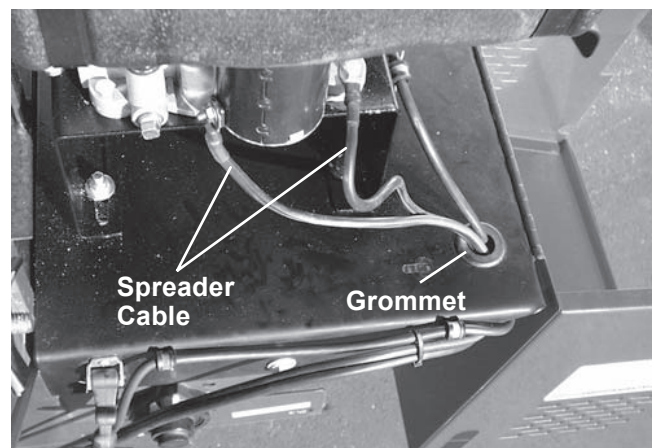
2. Verify that the cable is protected or secured away from all sharp edges and hot or moving parts.

Relay Wire

1. Install and secure the white relay wire between the cab control and the unused primary terminal of the starter relay. See cab control diagram supplied with the control for connection of the white wire to the start switch.
2. Verify that the wire is protected or secured away from all sharp edges and hot or moving parts.

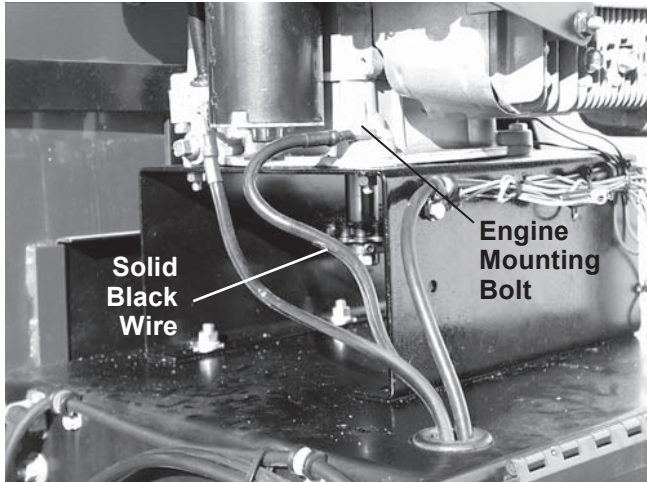
Spreader Cable

1. At the rear of the spreader, feed the spreader cable up through the 1" grommet in the engine base used by the spreader harness.

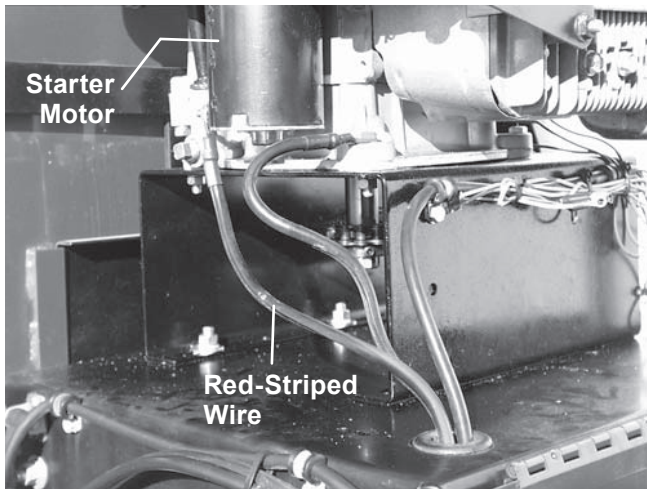


VEHICLE BATTERY KIT INSTALLATION INSTRUCTIONS

2. Attach the solid black wire of the spreader cable to the engine flange using the existing 5/16" cap screw, nut, lock washer and supplied 5/16" flat washer.

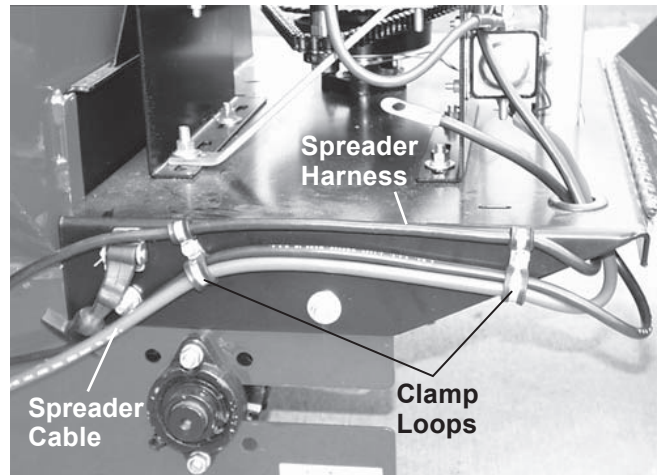


3. Connect the red-striped wire of the spreader cable to the starter motor terminal.

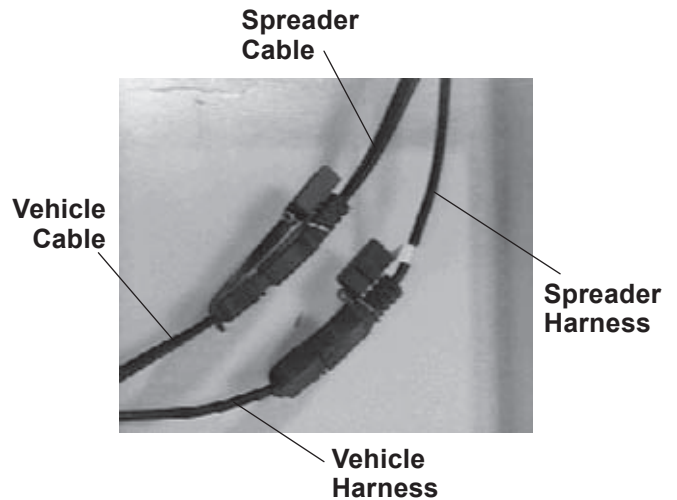


4. Route the spreader cable along the base and secure with #10 clamp loops.

NOTE: Use the fasteners that secure the spreader harness for securing the spreader cable.



5. Connect the spreader cable to the vehicle cable.

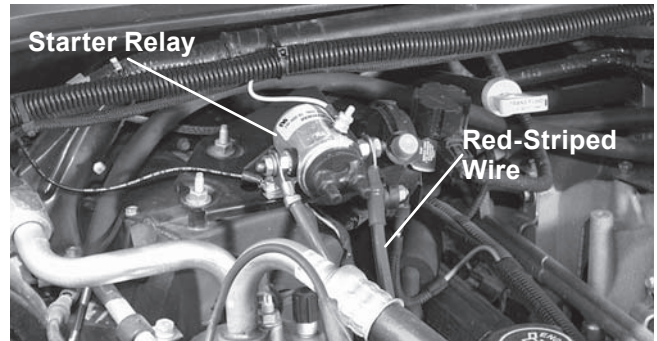


VEHICLE BATTERY KIT INSTALLATION INSTRUCTIONS

Vehicle Cable

1. Route the vehicle cable under the cab, into the vehicle engine compartment, and over to the starter relay.
2. Secure the vehicle cable to the vehicle, avoiding sharp edges and hot or moving parts.
3. Verify that the vehicle cable cannot drop onto the road when it is disconnected from the spreader.
4. Connect the solid black wire of the vehicle cable to the vehicle engine ground.

5. Connect the red-striped wire to the unused secondary terminal of the starter relay.



6. Reconnect the ground cable to the battery.

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