

MY12 RANGER EV 12V POWER KIT KIT P/N 2879031



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Application

MY12 Ranger EV

IMPORTANT: Before you begin, read these instructions and check to be sure all parts and tools are accounted for. **You will need to supply at least one 12V battery to complete this kit.** Polaris recommends using two batteries PN 4010630 (30 Amp Hour) for maximum performance.

Your Ranger EV is equipped from the factory with a 12V accessory terminal capable of providing up to 10 amps of current to power accessories (approximately 120 Watts). The vehicle has a terminal block already installed with this keyswitch-activated power available for you to connect accessories. This keyswitch-activated power is fused with a 10 amp fuse located in the main fuse box.

For accessories requiring more power than available through this connection, this kit should be installed. Examples of accessories requiring more than 10 amps of current include a box lift, winch, or multiple auxiliary lights. These larger accessories should be wired directly to the 12V battery kit **ONLY IF THEY INCLUDE A FUSE OR OTHER CIRCUIT PROTECTION METHOD ON THE POWER WIRE.** The winch systems offered by Polaris use an electrical contactor as the circuit protection method and are approved for use with this kit. If you are installing an accessory directly to the 12V battery kit, verify that it has a fuse, circuit breaker, or other circuit protection method to ensure the safe operation of your electrical accessories.

Please retain these installation instructions for future reference and parts ordering information.

This Kit Includes:

<u>Qty</u>	<u>Part Description</u>	<u>Part Number</u>
1.....	Battery Box	1017388
1.....	Charger, 48V to 14V	4013453
1.....	Harness, Charger to Main Harness	2412292
1.....	Charger Mounting Bracket	5255330
1.....	Cable, Ground Battery to Battery	4011552
1.....	Cable, Ground, Battery to Contactor	4012968
1.....	Cable, Positive Battery to Contactor	4012969
1.....	Cable, Positive Battery to Battery	4012970
2.....	Strap, Battery	5253777
1.....	Bracket, Contactor Mount	5254050
8.....	Screw, 1/4" Self-Tapping	7512208
2.....	Screw, M6x1.0x20mm Hex Head	7518796
6.....	Screw, M6x1.0x20mm Torx Self-Tapping	7518529
2.....	Nut, M5x0.8mm	7546601
2.....	Nut, M6x1.0mm	7547274
1.....	Instructions	9923953

Tools Required:

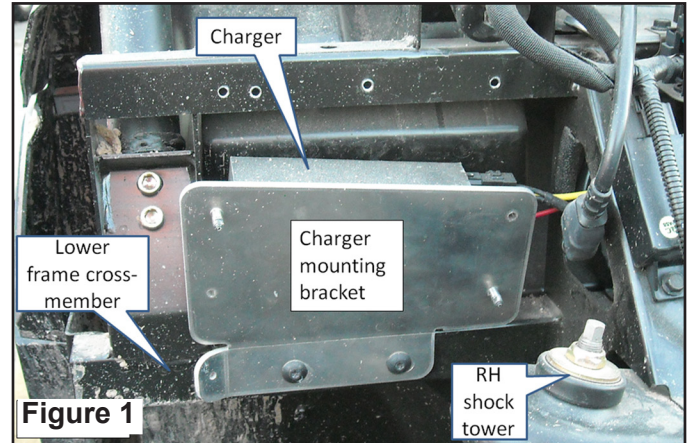
Drill & 5 mm or 3/16", 7/16" Drill Bit	Metric Socket Set
Torx Drivers	Ratchet

IMPORTANT: For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence as shown in the following instructions. Please wear safety glasses while performing the steps in the following instructions.

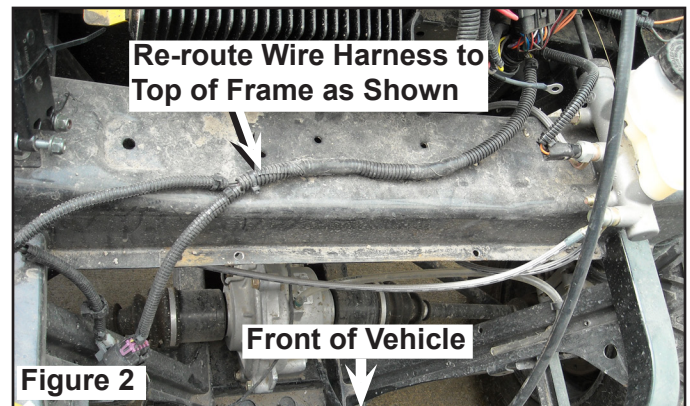
IMPORTANT: Your Polaris Ranger EV 12V Power Kit is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris.

INSTALLATION INSTRUCTIONS

1. See Figure 1. Assemble the 48V to 14V Charger to the battery box using four 6mm self-tapping screws. Make sure the bent tab is facing away from the charger as shown in Figure 1 to allow proper installation to the vehicle.
2. Place bracket against lower frame cross-member as shown in Figure 1. Drill two holes with the 5mm or 3/16" drill bit. Install two 6mm self-tapping bolts to secure the mounting bracket to the frame as shown.

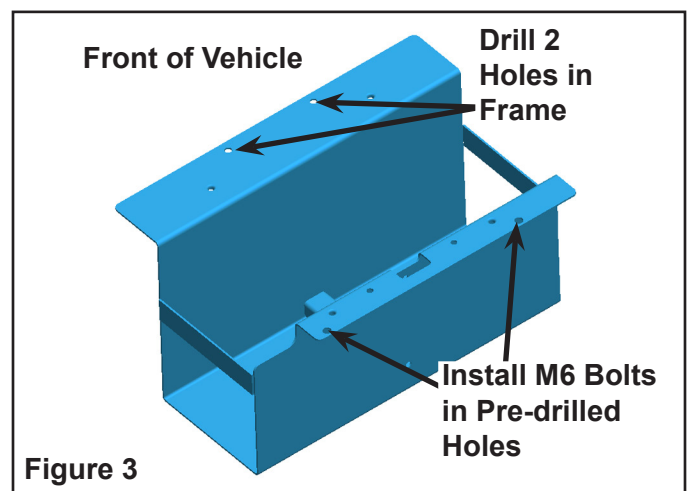


3. Reroute wires as shown in Figure 2. The battery box will be placed in this area.
4. Install battery box assembly onto vehicle. Charger will face the rear of the vehicle.



5. Center the battery box and install two M6 bolts through the holes as shown in Figure 3. Drill two holes in the frame with a 7/16" drill bit. Figure 3. Install 1/4" self-tapping screws in drilled holes and tighten until snug.
6. Install the contactor bracket on the frame gusset as shown in Figure 4 using two 1/4" self-tapping screws.
7. Install batteries with the terminals facing the rear of the vehicle. Install battery retention brackets with four screws.

CAUTION: Make sure to orient the battery connecting cables to avoid contact with the battery box, frame, or other metal components.



8. Figure 4. Using the jumper harness from the kit, connect the charger to the main harness. The connector on the main harness is located approximately in the center of the shock tower cross-member. Make sure to fully seat the connectors on both ends. Locate the two charge wires from the vehicle wire harness (black and red wires with ring terminals) and position them to connect to the closest battery. **NOTE:** The charge wires may have black heat-shrink tubing covering the ring terminals to protect them from contact with the frame. If they do, trim the tubing to expose only the ring portion of the terminal to ensure positive contact to the battery. Leave the remaining shrink tubing intact.
9. Connect the positive sides of the batteries together using the short red cable with black convolute sheath. Connect the positive charge wire from the vehicle wire harness to one of the batteries. Connect the negative sides of the batteries together using the short black cables and connect the negative charge wire from the vehicle wire harness to the same battery that the positive wire is connected to.

NOTE: If installing a winch on this vehicle you will not use the long battery cables included with the winch kit. Those cables are used to connect the winch contactor to the batteries on the Ranger 400.

NOTE: To avoid overcharging the 12V batteries, this charging system only functions when the vehicle key is in the "ON" position. The 12V battery kit will recharge from the drive system batteries while you are driving the vehicle. To prevent possible accidents and injuries, Polaris strongly recommends against leaving the vehicle key in the "ON" position while recharging the vehicle's drive system batteries.

