



Fig. 14. Phase II Battery Pack

Phase III

This pack will accommodate the AC-100 System. It will consist of 26 12-V gas recombinant Impact batteries configured in series to produce 312-V. Due to the higher efficiency of the AC-100, the expected range for the QC Geo Metro is predicted to be higher than the DC system, even though three batteries will be removed in Phase III.

System Voltage	120	V
# of Batteries	26	
# Parallel Strings	1	
Battery Capacity	52.8	Ah
Pack Weight	1018	lb.
Total Energy	16.5	kWh
Expected Range	142	miles (Assuming 120 Wh/mile energy consumption)

6. BATTERY EXCHANGE PROCEDURE

A trained person can manually change the QC Geo Metro's battery pack quickly. The following steps describe the vehicle's manual battery exchanging procedure:

Battery Exchange Procedure

1. Park vehicle on a level surface with a new battery pack directly in front of the car.
2. From the operator's door (formerly the fuel filler door) raise the toggle switch momentarily (Fig. 15). This raises the battery pack and removes pack weight from the mechanical "uplock" (Fig. 16A, 16B, 16C).
3. Pull the cable handle (located adjacent to the toggle switch) to open the uplock. The battery unlatch light (located inside the rear window) will turn on indicating that the battery uplock is open.
4. While maintaining tension on the handle, lower the pack by pressing the toggle switch down until the pack settles completely on the ground. After the pack has touched the ground, continue depressing the toggle switch until there is enough cable slack to allow the suspension cable lugs to be removed from the four battery pack hooks (Fig. 2).
5. Roll the vehicle forward off the old battery pack and over the newly charged replacement battery pack (Fig. 17).
6. Replace the cable lugs on the charged battery pack.
7. Raise the new pack by pushing the toggle switch up until the uplock is engaged and the battery unlatch light turns off. Release the toggle switch and allow the battery to settle. This ensures positive seating of the plunger ram on the uplock. Electrical contact is automatically made through the spring loaded plungers located inside the receiver box (Fig. 18).

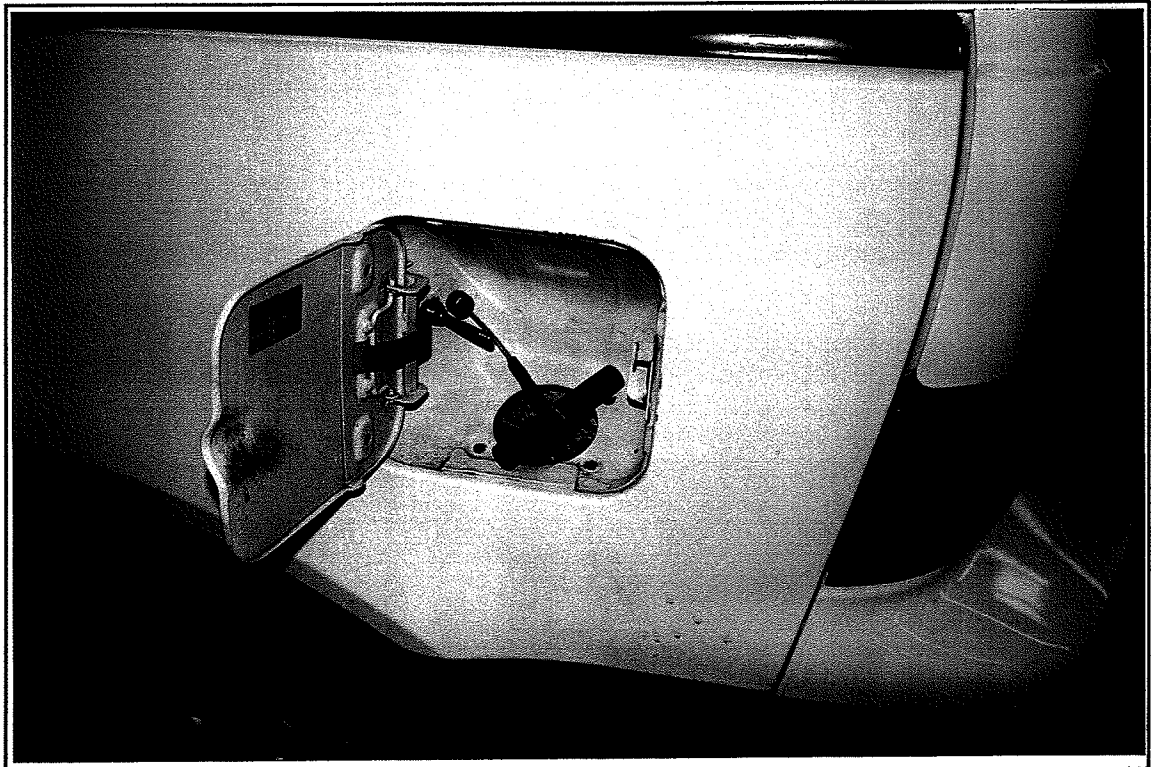


Fig. 15. Hydraulic ram controls