



# WRANGLER

## Power Products

### MODEL 100-130

## Auxiliary Battery Tray Installation Instructions

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*The 100-130 Auxiliary Battery Tray will not work with the factory air box assembly in the vehicle. An aftermarket air intake assembly will need to be used to clear the area in the left front (drivers side) engine compartment to make room for the Wrangler NW auxiliary battery tray assembly.*

To install the battery tray:

1. After the factory air box is removed, attach the inner fender support bracket to the Wrangler NW auxiliary/dual battery tray (this bracket may already be attached at the factory) place the complete Wrangler NW auxiliary/dual battery tray with bracket assembly in place and install two bolts into the "kept" nuts that were holding the factory air box in place (do not tighten at this time).
2. Position the tray so you can drill the support hole in the inner fender well for the support bracket, install the nut and bolt for the inner fender support and tighten all of the battery tray nuts and bolts.
3. Install the auxiliary battery with hold down hardware.

To install the isolation relay:

1. Mount the isolation relay on the side of the auxiliary battery tray. Install the small ground wire (12", 10-gauge wire) on one of the relay's mounting bolts and on the relay's negative terminal.
2. Install the auxiliary battery ground cable (16" negative/black cable) between the battery and engine block, attaching it to the stud on the top front of the engine on the driver's side, right next to the valve cover (or appropriate ground source).
3. Route the long positive cable (8' positive/red cable) from one of the large terminals of the isolation relay to the main battery positive terminal and attach it there with the supplied hardware.
4. Attach the auxiliary battery positive cable (16" positive/red cable) from the auxiliary battery to the other large terminal on the isolation relay.

**NOTE:** if you choose not to install the Battery Manager switch you can connect an "ignition hot" source to the small coil positive terminal on the relay so that the relay is activated when the key is in the "ON" position to tie the batteries together.

**CAUTION:** Always follow safe practices when working with vehicle mechanical or electrical systems. Wear protective eye-wear. Don't attempt installation or repairs when tired or impaired. Always use the proper tool for the job. Disconnect batteries from the system when installing or repairing wiring. Failure to follow adequate safety procedures could result in damage to components or the vehicle, as well as serious physical injury to yourself or others.

If you are confused by any aspect of this installation, consult with a qualified auto electrician, or contact Wrangler Customer Service toll free at 800-962-2612.

## **INSTALLING BATTERY MANAGER SWITCH**

The Battery Manager Switch allows the user to manually override the isolation relay to provide additional starting current when needed. To install the Battery Manager Switch:

1. Find a suitable location for the switch on or under the dash. Once a location is selected, mark the mounting hole locations with a fine permanent marker. Check on the reverse side of the dash to ensure the location is free of conflicts or obstructions for the mounting screws. Mount the Battery Manager Switch using the self-tapping screws supplied in the kit.
2. Route the wiring harness under the dash and through the firewall.
3. If no existing holes are available, locate and drill a 1/2" hole in the firewall (NOTE: be sure there are no obstructions on the opposite side of the firewall when drilling this hole). Insert the wiring into a 1/2" grommet and insert into the firewall.
4. Route the engine side of the battery manager wiring over to the isolation relay.
5. Connect the "Battery Manager" wiring to the isolation relay. Attach the auxiliary battery positive cable (16" positive/red cable) from the auxiliary battery to the other large terminal on the isolation relay.
6. The Battery Manager system voltage is sourced from the factory fuse center of the vehicle. When using the fuse center for the 12 volt source locate the appropriate "ignition on" 12 volt source, (this must only be hot with the key in the "on" position). Refer to the owners manual if necessary.
7. Install the fuse tap and connect it to the fused pigtail from the Battery Manager Switch. Verify that these sources have voltage with the ignition switch in the "on position" only.

### **BATTERY MANAGER OPERATION**



#### **AUX-OFF MODE**

Switch in the CENTER position. Only main battery is being charged. Circuits connected to the AUX battery still function. If the AUX battery fails, this mode disconnects the AUX battery from the MAIN battery, ensuring that the MAIN battery and the charging system are unaffected. LED is in the neutral (clear) mode.



#### **DUAL-ON MODE**

Switch in the LEFT position. This is the NORMAL position. Charges both batteries while the engine is running. Batteries are completely isolated from each other when the ignition is in the OFF, START or ACCESSORY positions. LED is in the green illuminated mode.



#### **DUAL EMERGENCY-ON MODE**

Switch in the RIGHT position. Both batteries are connected with the ignition switch in either the ON, OFF or START modes. This position allows the user to crank the engine using both batteries if the primary battery is incapable of doing so alone. Batteries can also be joined for winching or other chores that require additional amperage. LED is in the red illuminated mode.