

## Hardware:

- Battery Tray
- Aluminum AC Line (some kits)
- Battery Hold Down
- 2 each MS75004-1 Positive Battery Terminal
- 2 each MS75004-2 Negative Battery Terminal
- 1 Pair Side Post Adapters
- 2 each M8x1.25x25mm Hex Head Bolt
- 1 each M8x1.25x25mm Counter Sunk Bolt
- 2 each 5/16 SAE Flat Washer
- 1 each 3/8-16 x 7.5" Hex Head Bolt
- 1 each 3/8 SAE Flat Washer

## Some things to consider:

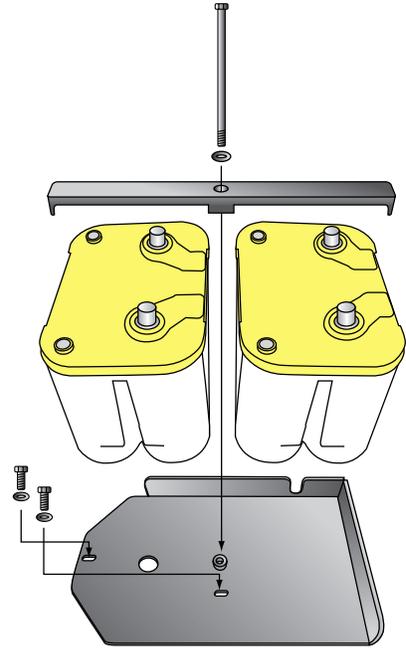
Not all TJ's are created equal. It's very important that you test fit all items and make sure nothing is rubbing the batteries. If the AC line is a little too close to the first battery's positive terminal, gently bend it up for more clearance.

The hardware on the battery terminals provided can be reversed. This means you can remove the nuts and bolts and point them in the direction you want them. You don't have to worry about shorting anything out when using a wrench on the negative terminals but care should be taken when tightening the positive terminals. Position the hardware where you can access it the easiest when the batteries are installed. The side post adapters should be installed on the battery closest to the engine only.

TJ's with AC and the silver Accumulator must take their vehicle to their local AC shop and have the system discharged, our new AC line installed and the system recharged. The replacement time on the new AC line is approx 5 minutes once the freon has been removed so the charges should be minimal.

On older TJ's, our AC line will not work because the OEM AC line is welded to the top of the accumulator. These TJ's will need to take their vehicle to a good AC shop and have them modify this line. They would cut the line, weld two new crimp fittings in place and lengthen the line by crimping in a section of rubber hose. AC shops do this kind of work all the time and it shouldn't be an issue for them. An average cost to do this would be approx \$100-\$120 from start to stop. Your local shop rates WILL vary. Start with the AC instructions below before proceeding to the battery tray install instructions. TJ owners without AC can skip these instructions and proceed to the battery tray installation instructions.

For 34 and 34/78 series Optima Batteries only.



Thanks for buying a Kilby Enterprises product!

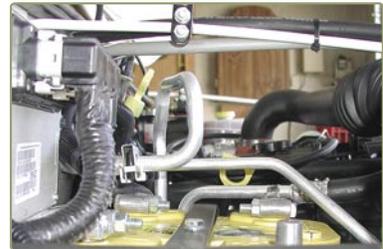
## AC Modification Instructions:

1. Discharge the system.
2. Remove the aluminum line going from the firewall to the accumulator.
3. Loosen the factory clamp holding the accumulator and slide the clamp off the mounting bracket by sliding forward. Slide the clamp down the accumulator, flip over and slide back up the accumulator. This will move the accumulator closer to the engine by approx. 4". Re-attach to the mounting bracket but don't tighten the clamp just yet.
4. Install the new AC line if provided or proceed to modifying the existing line.
5. Tighten the clamp then recharge the AC system and check for leaks.
6. Once the AC is working again, proceed to the battery instructions below.



## Battery Tray Installation Instructions:

1. Disconnect the battery. Remove the battery cables, battery hold down and remove the battery.
2. Remove the PDC (Power Distribution Center) from its mount and move slightly forward. You may also want to move the PCM upward if you need more room. You can relocate the PCM higher by simply redrilling the 3 holes used to mount the unit.
3. Unbolt the factory battery tray and remove the battery sensor.
4. Install the battery sensor into the new tray and install tray using the hardware provided. Be sure you don't pinch the sensor wires.
5. Install the first battery and slide it to the end of the tray closest to the engine.
6. Test fit the first battery and check clearances to the wiring harness going to the PCM (Powertrain Control Module) and the two studs used to mount the AC Accumulator. If the studs touch the battery, trim both studs approx. 3/16" to clear. If the wiring harness needs to be moved, disconnect both the black and white connectors from the PCM and route the wires above the heater hoses.
7. Reinstall the first battery and face the side posts towards the engine. Install the second battery facing the same direction. Install the batteries by standing the battery on its end, then position it in place. \*\*'97-'02 TJ's have a fan motor that protrudes through the firewall just under the PCM. You may need to trim the fins on the back of the fan just slightly to help clear the second battery. Install the second battery and check this clearance. You can trim the fin by using wire cutters and clipping off the fin.
8. Install the new battery hold down using the long bolt and washer provided. Snug the bolt hand tight only. Do not over tighten!
9. Install the PDC back into its mount.
10. Re-connect your batteries using the method of your choice.



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