

MAXIMUM ALTERNATOR RATING	*RECOMMENDED CABLE SIZE / CIRCUIT BREAKER			
	Up to 15ft	15ft to 20ft	20ft to 25ft	25ft to 30ft
70/90/100 Amps	#8 ga. / 50 Amp	#6 ga. / 50 Amp	#4 ga. / 50 Amp	#4 ga. / 50 Amp
120/140 Amps	#6 ga. / 80 Amp	#4 ga. / 80 Amp	#2 ga. / 80 Amp	#1 ga. / 80 Amp
180 Amps	#4 ga. / 120 Amp	#2 ga. / 120 Amp	#2 ga. / 120 Amp	#0 ga. / 120 Amp
200 Amps	#000 ga. / 150 Amp	#000 ga. / 150 Amp	#0000 ga. / 150 Amp	#0000 ga. / 150 Amp

*A full range of cable / circuit breakers are available from your QuickCable distributors.

INSTRUCTIONS FOR TESTING A QUICKPOWER ISOLATOR WITH OHMMETER*

1. Remove all wires from the isolator.

2. Using a needle movement ohmmeter Rx-1 scale or a digital ohmmeter diode scale, hold the Red* probe on terminal "A" and with the Black* probe touch terminal #1 and #2, and the "E" terminal (Group #2). A good isolator will show a current flow from "A" to #1, #2 and no current flow to "E".

3. Next, hold the Black* probe on terminal "A" and with the Red* probe touch terminal #1 and #2 (Terminal "E", if used). A good isolator will allow no current flow from "A" to #1, #2 and will show a current flow from "E" to "A".

4. Hold one probe on the aluminum heatsink, being sure there is contact by scratching through the protective coating. Then touch with the other probe, terminals "A", #1, #2 (the "E" terminal for isolators [Group 2]). A good isolator will show no current flow.

5. Smaller terminal indicates "E" post on group 2 isolators.
*On some import ohmmeters, the red and black probes are reversed for these tests.

**If using a digital ohmmeter, a diode scale MUST be used.

ELECTRICAL TEST

1. Engine not running: #1 terminal of isolator should read vehicle battery voltage. #2 terminal should read auxiliary battery voltage. The "A" terminal may read from zero to 13 volts. The "E" terminal on isolators (group 2) should read zero volts.

2. Engine running and alternator charging: #1, #2 and "E" terminal on isolators (group 2) should read voltage regulator setting or less approximately 13.8 to 14.5 volts. The "A" terminal voltage should read 0.8 to 1 volt higher than the reading of the #1, #2 terminals and "E" terminals (group 2).

3. For 12 volt systems the "A" post should read approximately 14.8 to 15.5 volts. The #1 and #2 terminal should read 13.8 to 14.5 volts. If the "A" terminal reads 13.8 to 14.2 volts the regulator may be sensing the alternator output rather than the main battery. This situation needs to be corrected for proper charging of batteries.

4. Smaller terminal indicates "E" post on group 2 isolators.

ISOLATOR LIMITED WARRANTY

Do Not Return the Isolator To the Place Of Purchase.

The Manufacturer warrants this product that has been proven defective in material or workmanship for one (1) year from the date of original retail purchase. At our option we will repair or replace.

EXCEPT FOR THIS LIMITED WARRANTY, THE MANUFACTURER HAS NOT MADE AND SPECIFICALLY DISCLAIMS ANY WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED, DIRECT OR INDIRECT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY, AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED, CONDITIONAL WARRANTY PROVIDES THE EXCLUSIVE REMEDY FOR ANY CLAIM OR DAMAGE EXCEPT AS OTHERWISE REQUIRED BY LAW.

This warranty excludes and does not cover defects or failures of your isolator due to any cause other than defects in material or workmanship, including without limitation any malfunctions or failures caused by repairs made by an unauthorized person, mishandling, modifications, normal wear, improper storage and unreasonable use or damage.

IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Any claim relating to the isolator must be submitted within one (1) year and must be sent to Quick Cable in the U.S.A or Canada.

If any portion of this warranty or limitation of rights and remedies is found to be unenforceable, then the remainder of this document shall remain in full force and effect.

To obtain service under this warranty, call Technical Service toll free in U.S.A. 1 (800) 558-8667 or in Canada 1 (800) 728-1742. Have your isolator near the phone and a technician will help you diagnose the problem.

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QUICKCABLE®

English, Español, Français Manual/Manuel
quickcable.com/reference

MULTI-BATTERY ISOLATOR APPLICATIONS

The installation of a QuickPower multi-battery isolator is quite simple as long as you carefully read and understand these instructions, and most importantly review the application chart below, before you begin.

First, make sure you have all the tools, wire, connectors and circuit breakers you will need. QuickCable offers an installation wiring kit which make the job a snap. See the table that follows for the recommended wire size and circuit breaker for your installation.

For optimum system performance it is recommended that a battery labeled "Deep Cycle" be used in the auxiliary position. Finally, QuickPower multi-battery isolators are designed for alternator systems with negative ground, and batteries of the same nominal voltage. Batteries of differing voltages cannot be used.

For positive ground systems, marine outboard systems, or heavy-duty truck systems, contact QuickCable for the proper isolator for you specialized application.

WHAT YOU WILL NEED TO INSTALL

- Screwdriver • Drill with 1/8" bit • Wire Crimper
- Open end wrench set • Nut driver set
- Automotive grade wire • Ring terminals Butt connectors
- Appropriately sized circuit breaker • Terminal Boot Covers

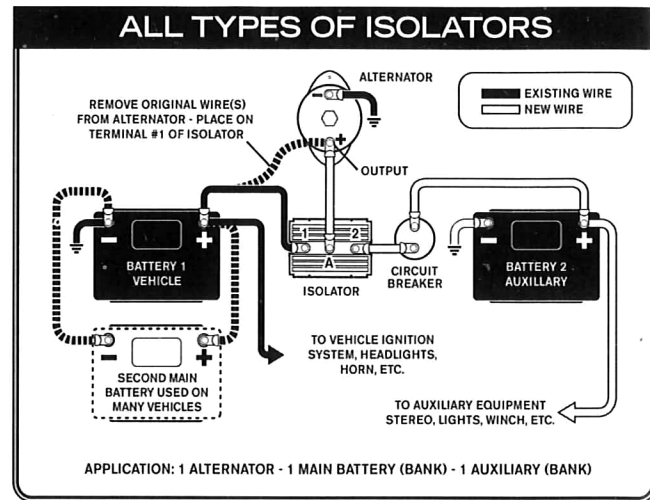
READ INSTRUCTIONS COMPLETELY BEFORE INSTALLING

GROUP 1				
	A Group 1 Isolator will have an alternator post and up to four battery posts. "E" terminal is not colored or smaller.			
GM (Delcotron/Delphi)	Except Delcotron/Delphi CS series alternators (used on most 1985 and newer GM vehicles).			
Ford	Up to 1998			
Chrysler	All models, all years including Nippondenso externally regulated alternators.			
Jeep	Equipped with Nippondenso externally regulated alternators			
Japanese Imports	With alternators using external voltage regulator or external sensing.			
Motorola	Load Handler Series or 8EM Remote Sense Series			

GROUP 2			
	***Delco/Delphi CS series alternators require a separate sense wire. All Group 2 Isolators may be used in Group 1 applications. Disregard the additional excitation ("E") terminal. A Group 2 Isolator will have a colored fourth terminal indicating the "E" terminal. Unplugging the plug-in connector from the alternator and counting the number of holes in the connector can identify the CS series alternator. The CS130-D alternator has four pin terminals all the same size.		
GM (Delcotron/Delphi)	Equipped with Delcotron/Delphi CS series (most 1985 - 1993) or CS130-D series alternators (most 1993 and newer***)		
Jeep	Vehicles equipped with Delcotron/Delphi CS series alternator (most 1985-1990).		
Toyota, Honda and some imports	UP 1985 and newer equipped with Nippondenso alternator with internal regulators or alternators with an "S" (sense) terminal.		
Ford	Many 1998 and newer		

(See Page 4 for information regarding recommended wire sizes and circuit breakers)

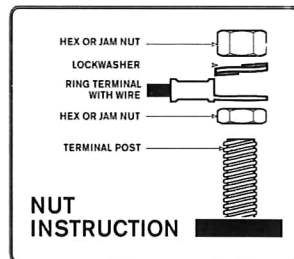
GROUP 1 ALTERNATOR INSTALLATION INSTRUCTIONS



1. Remove the wires from negative terminals of all the batteries on your vehicle. Do not run the engine, extinguish all burning material and do not smoke near the engine. FOLLOW VEHICLE MANUFACTURER'S RECOMMENDATIONS FOR DISCONNECTING BATTERY.

2. Mount the isolator in a convenient location as near to the alternator as possible and away from the exhaust manifold. Allow for proper ventilation. Do not mount on the engine. Drill 1/8" holes and mount with the screws provided.

3. Install hardware to the studs in the order shown in diagram, being careful not to over torque the bottom hex or jam nut. Failure to install bottom hex or jam nut will void warranty and result in poor electrical connections.



4. Locate the "BAT" terminal at the rear of the alternator. It is usually the largest connection. Disconnect ALL the wires (including the voltage regulator sensing wire if present) from the "BAT" terminal of the alternator. Reconnect these same wires to the "1" terminal of the battery isolator. Lengthen the wires, if necessary. Be sure you follow proper splicing techniques.

NOTE: DISCONNECTING OR CUTTING THESE WIRE IN A LOCATION OTHER THAN AT THE ALTERNATOR MAY RESULT IN IMPROPER FUNCTIONING OF THE CHARGING SYSTEM.

5. Connect one end of a new wire of the proper size (see Application Chart - Recommended Wire Size) to the battery "BAT" terminal of the alternator and the other end to the "A" terminal of the isolator. This should now be the only wire connected to either of these terminals. CAUTION: 1985-1990 Ford or 1998 and newer Ford vehicles may require special instructions.

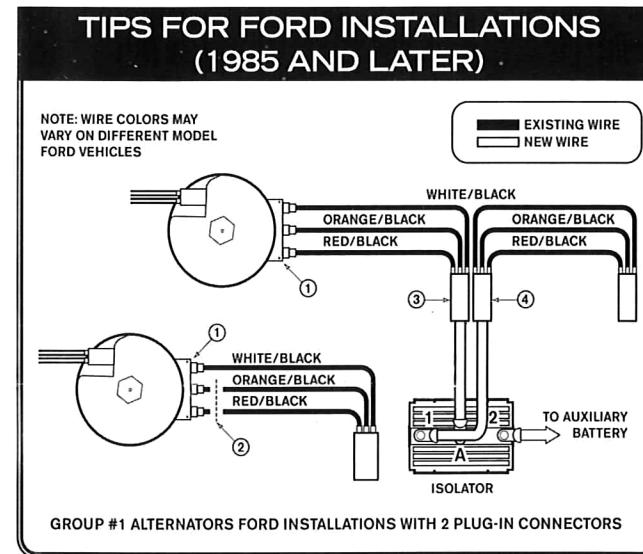
6. Mount a circuit breaker as near to the auxiliary battery as practical, and away from engine or exhaust heat (see application chart for proper size). Connect one end of a new wire of the proper size to the "2" terminal of the Isolator. Run the wire to the circuit breaker and connect it to the "AUX" terminal. Run

another wire from the circuit breaker to the auxiliary battery, connecting one end to the "BAT" terminal of the circuit breaker and the other to the positive "+" terminal of the auxiliary battery.

7. IF YOUR INSTALLATION FALLS IN ALTERNATOR GROUP TYPE #2, PROCEED TO SPECIFIC INSTRUCTIONS FOR THAT RELEVANT GROUP, OTHERWISE PROCEED TO STEP #8.

8. Connect all of the auxiliary loads (phone, lights, stereo, refrigerator, winch etc.) to the positive post of the auxiliary battery(s). Reconnect the ground cables removed in step 1. Also, make sure the negative (-) terminals of the auxiliary battery(s) are properly grounded with a conventional ground strap. Protect with circuit breakers as required.

9. Perform the electrical tests (page 4) to assure proper operation.



This section applies to Ford alternators with 2 plug-in connections. If your alternator has an output bolt, return to Step 6 of general instructions.

CAUTION: Disconnect battery before proceeding with modification and installation.

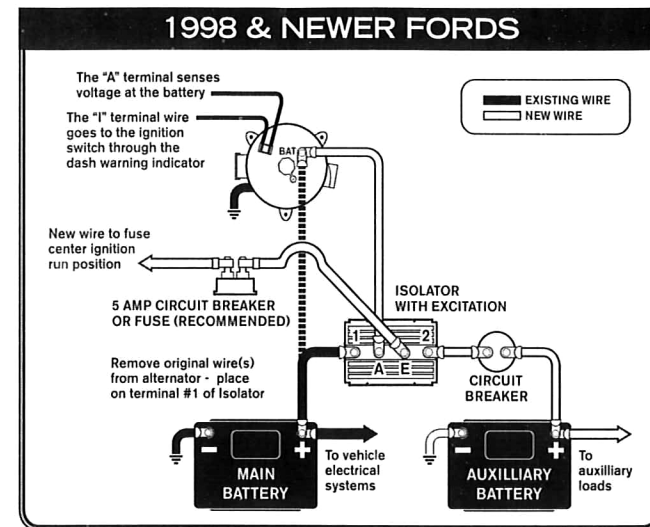
1. Locate the connector on the side of the alternator that has one light wire and two heavy black wires with orange or red trace.

2. Cut both black/orange wires close to the alternator, allowing enough length to attach a splice (approximately 2 to 3 inches). Do not cut the smaller wire. Damage to vehicle may occur if wires are cut beyond the factory cabling splice (approximately 6 inches from the alternator).

3. Splice an extension wire to both wires that are attached to the alternator and connect the other end to the "A" terminal of the isolator.

4. Splice an extension wire to both wires extending from the vehicle wire harness and connect the other end to the "1" terminal of the isolator.

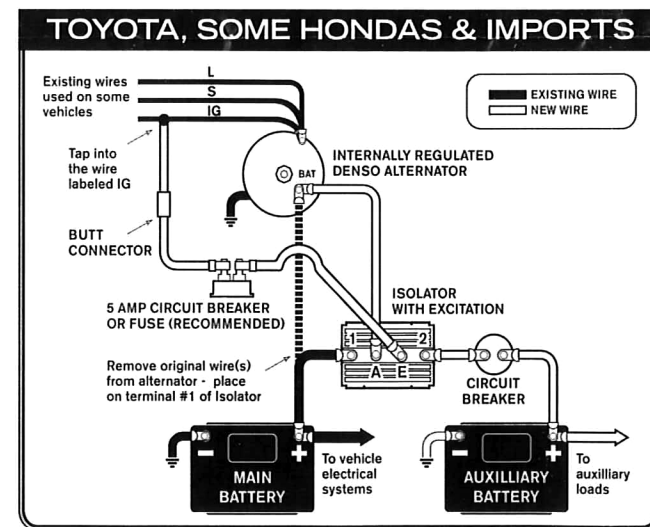
GROUP 2 ALTERNATOR INSTALLATION INSTRUCTIONS



NOTE: This procedure is an additional step for some 1998 and newer Ford applications. Group 1 general instructions must be followed in addition to this instruction.

After completing steps 1-9 of the general instructions, connect a new wire from the "E" terminal of the Isolator to a 5 amp circuit breaker, then to an ignition run connection in the fuse center.

NOTE: The Group #2 isolator may be used in applications not requiring the excitation by not connecting the "E" terminal.

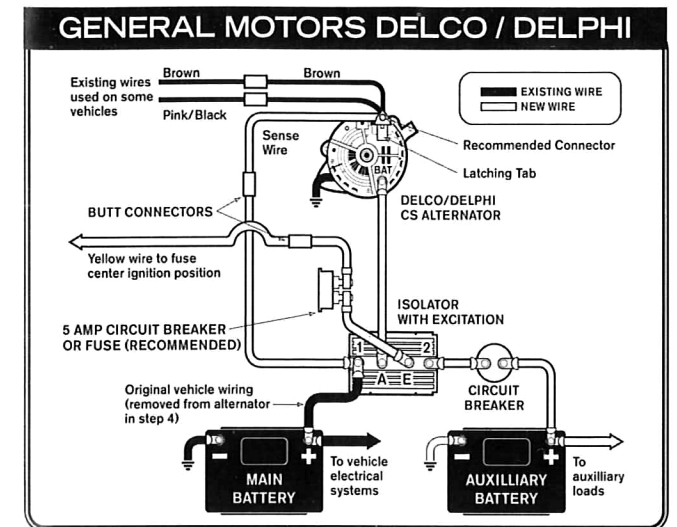


For imports using internally regulated Nippondenso alternators. When installing an isolator to a Toyota alternator, follow general installation instructions in addition to the following steps.

1. Locate the small ignition wire terminal labeled "IGN" that runs from the alternator to the wiring harness. Check that you have the right wire by stripping a small section of wire and then determining that voltage is present only when the key is in the "run" position but not in the "accessory" position. Do not interrupt wire.

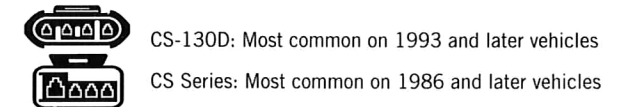
2. After completing general instructions, connect an excitation wire from the point located in Step #1 above, to the "E" terminal.

NOTE: The Group #2 isolator may be used in applications not requiring the excitation by not connecting the "E" terminal.



When installing an isolator on a GM "CS" series alternator equipped vehicle the general isolator installation instructions must be followed in addition to Group 2 instructions. However, this alternator requires external excitation and external sensing. An isolator with an excitation terminal "E" and a plug connector kit are required. There are two styles of Connectors used on GM vehicles after 1985. These are CS and CS-130D.

Note: If the existing Delco/Delphi connector has a wire in the "S" position of the standard CS alternators or a wire in the "D" position on the CS-130D connector, the replacement of this plug is not necessary. Proceed to step 3 below. If these positions on the connectors are vacant, proceed as follows:



Please follow steps 1-4 below after completing general instructions.

1. Reconnect the new plug into the alternator.

2. Route the remaining sense wire of the plug-in connector to terminal #1 of the QuickPower isolator. Cut to the correct length, strip and crimp on the 1/4" ring terminal supplied. Now connect to terminal #1 of the isolator along with wires from step 4 of general installation instructions. This becomes the voltage sense wire.

3. External excitation connection. The "E" post of the isolator requires connection to an ignition switched source such that power is applied only in the ignition/run position.

BE SURE POWER IS NOT APPLIED WHEN IGNITION IS SWITCHED TO ACCESSORY POSITION.

On most late GM vehicles this point may be one of the spare ignition terminals marked "IGN" on the fuse center. Connect one end of the yellow wire supplied to one of these spare ignition terminals. Route the other end of the yellow wire to the "E" terminal of the isolator. Insert the circuit breaker in the yellow wire as shown in the diagram.) Cut the correct length, strip and crimp on the supplied ring terminal. Now connect the yellow wire to the "E" terminal of the isolator with the lock washer and nut.

4. Now proceed to Step 8 of the GENERAL ISOLATOR INSTALLATION INSTRUCTIONS.