



MG Midget and Austin-Healey Sprite Supercharger Alternator Conversion Installation Instructions

FOR 1961-1967 Midget (up to car# G-AN4-60459)
and Sprite (up to car# H-AN9-72040)

PART # 130-108

440 Rutherford St. P.O. Box 847 Goleta, CA 93117
1-800-667-7872 • FAX 805-692-2525 • www.mossmotors.com

Tools required: medium flat blade screwdriver, medium phillips screwdriver, 1/2" wrench, 7/16" wrench, 5/16" wrench, 9/16" socket, 1/2" socket, dead-blow hammer, air impact gun, 22mm socket, pry bar, wire cutters, wire crimpers, pliers, voltmeter.

Note: The vehicle must be converted to negative ground before the alternator can be installed. These instructions will outline this polarity conversion as a part of the alternator conversion.

Vehicle Preparation - Positive Ground to Negative Ground Conversion

1. Disconnect the battery using a 1/2" wrench.
2. Disconnect the Brown/Green and Brown/Yellow wires from the Generator. If the generator uses ring type connectors use a 5/16" and a 7/16" wrench.
3. Reverse the positions of the two wires on the ignition coil. Note: If the vehicle uses an electronic ignition it will have to be replaced with a negative ground electronic ignition. We recommend Moss Motors # 222-405.
4. If an ammeter or voltmeter has been fitted

the position of these wires will need to be reversed.

5. If the fuel pump is solid state it will have to be replaced. We recommend Moss Motors #377-285.

6. If the vehicle uses a mechanical tachometer move on to the next step. If the vehicle uses an electronic tachometer it will need to be converted. To convert the tachometer, John Twist offers the following advice:

Two changes are necessary to completely convert your early positive ground electric tach:

a.) The wires must be reversed at the "white wire loop" at the back of the unit, and b.) the power and earth connections must be reversed inside the case.

a.) The wire in the "white wire loop" comes from the key switch and travels to the hot side of the coil. Referring to the illustration below, select one of the wires and tag it with two pieces of tape for identification. Then, cut the wire between the pieces of tape, and cut the other wire to the same length. Reverse the connections (now there is one piece of tape on each wire) and solder them (remember, this is

Installation Instructions

the power lead for the coil and is unfused). Tape up the connections carefully. When later replacing the plastic block on the back of the tach, ensure that the metal band around the block is carefully positioned. This is a necessary part of the electromagnetic pickup.

b.) To reverse the power wire and earth wire inside the unit, it is necessary to remove the chrome ring, the glass face and the glare shroud. The chrome ring is usually removed with great difficulty by prying the tabs with a small screwdriver, then rotating until the tabs can fit through the slots in the case. Remove the two screws on the back of the unit that hold the internals to the case (not the two whose heads fit in holes in the case), and allow those internals to drop carefully into your hand. Don't bend the needle! The spade terminal is the power connection, just next to this is the earth connection. A resistor is soldered to one of these connections, and a green wire to the other. Unsolder the ends of the green wire and the resistor from their current positions. Re-solder the green wire to where the resistor was connected, and the resistor to where the green wire was connected. Reassemble the unit after cleaning the glass. (See Illustration 1)

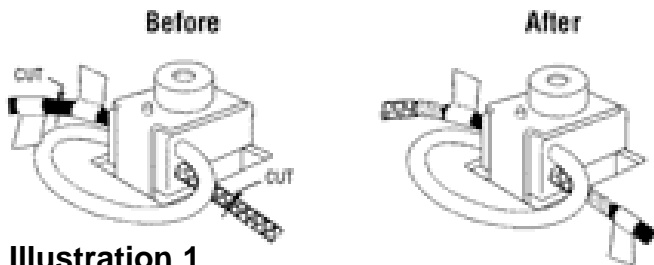


Illustration 1

Alternator Installation

1. Pull back on the dynamic tensioner and remove the drive belt from the pulleys.
2. Using a 1/2" socket and combination wrench, remove the bolt furthest from the engine, securing the generator link to the idler plate. Next, remove both generator pivot bolts. Pay close attention to the shim washer locations. Remove the generator from the car.

3. Using a 7/8" or 22 mm socket (this could be different for your car, use the appropriate socket) and a 1/2" impact wrench, remove the nut securing the pulley to the generator. To stop the fan from turning a carefully positioned rag can help. Slide the pulley off the generator shaft. Install the new fan and generator pulley onto the alternator. It may be necessary to tap the pulley on with a dead-blow hammer. Note: the woodruff key has a tendency to slide out of its slot. Hold the woodruff key in place with a small screwdriver. Install the lock washer and start the nut. Tighten using the 1/2" impact wrench and a rag to hold the fan. The assembly is tight when the fan moves with the pulley and the lock washer is crushed. (See Illustration 2)

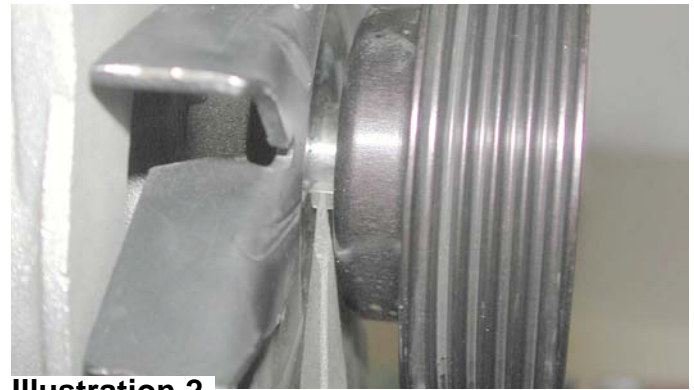


Illustration 2



Installation Instructions

4. Remove the rear bracket from the block using a 1/2" socket and replace it with the new bracket supplied in the kit (Moss part number 130-115) using the same hardware. Do not tighten down the bracket yet. (See Illustration 3)

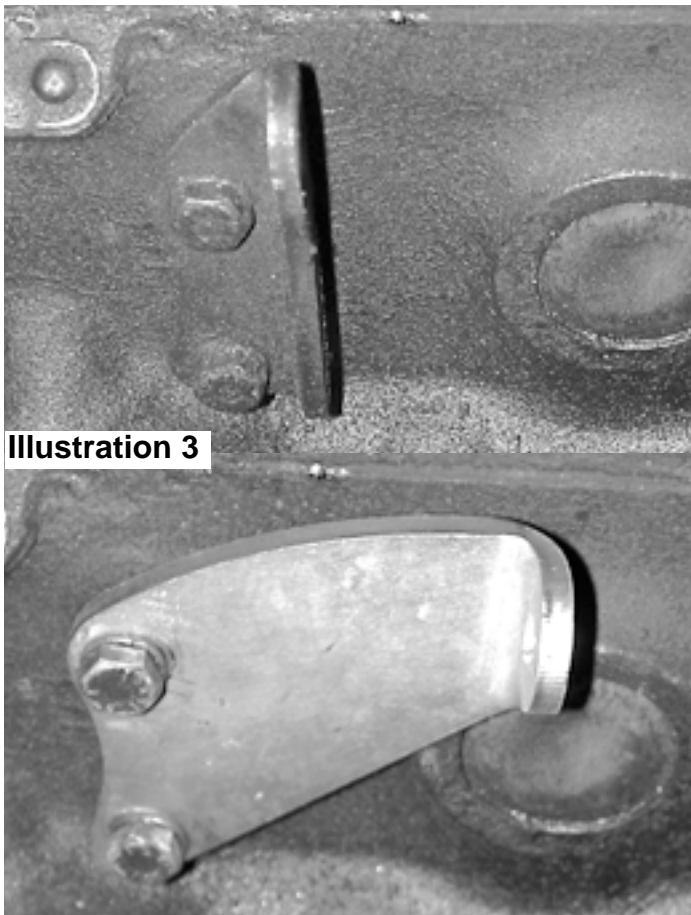
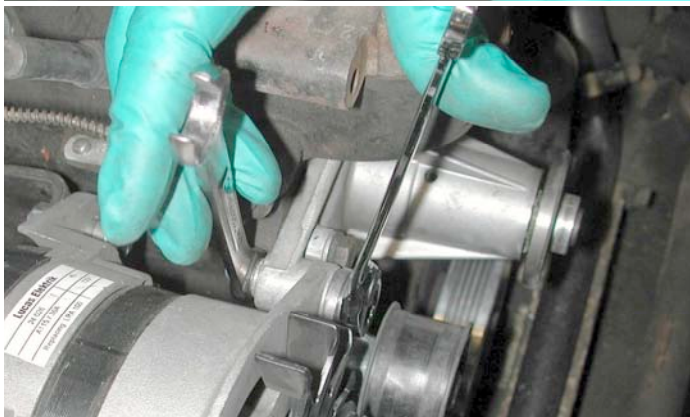
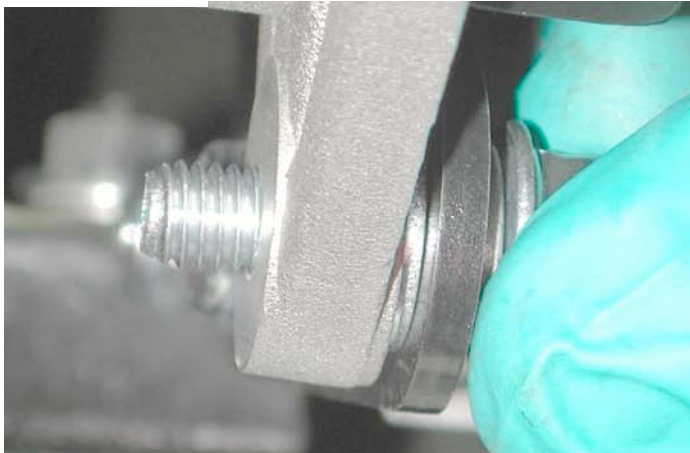


Illustration 3

5. Loosen the pillar block nut so that the idler plate can be moved around. Install the alternator using the generator pivot bolts. **The front bolt should go first through the idler plate, then through a washer, then the alternator ear, then the water pump ear and finally through the lock washer and nut.** The rear bolt passes through the sleeve in the ear of the alternator, through the rear mount, and then through the lock washer and nut. Leave the bolts loose. Next, use the included M8X25mm bolt to fasten the outermost alternator ear to the idler plate. Insert it through the plate, slip on a flat washer, then thread it into the alternator ear. Tighten the bolts starting with the front pivot bolt, the rear pivot bolt, the rear bracket bolts, the pillar block nut and finally the M8 bolt in the outermost alternator ear. (See Illustration 4)



Illustration 4



Installation Instructions

6. Install the new drive belt by pulling back on the dynamic tensioner and slipping the belt on. Refer back to the supercharger instructions for belt alignment and adjustment. (See Illustration 5)

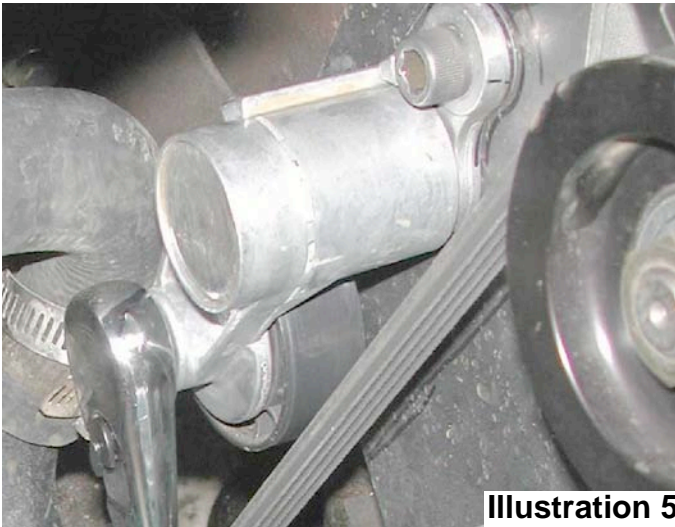


Illustration 5

7. Attach the Brown/Yellow and Brown/Green wires to the leads on the back of the alternator. If the wires are fitted with the ring type connectors then the female spade connectors will have to be installed. To do so, remove the ring type connectors with wire cutters and strip 1/4" of insulation off of each wire. Attach one of the two non-covered female spade connectors to the Brown/Yellow wire and a small red spade connector to the Brown/Green wire using wire crimpers. Use a 1" section of the heat shrink provided to cover the larger spade connector. The Brown/Yellow wire will go on either of the two larger leads and the Brown/Green wire will go on the smaller lead. (See Illustration 6)

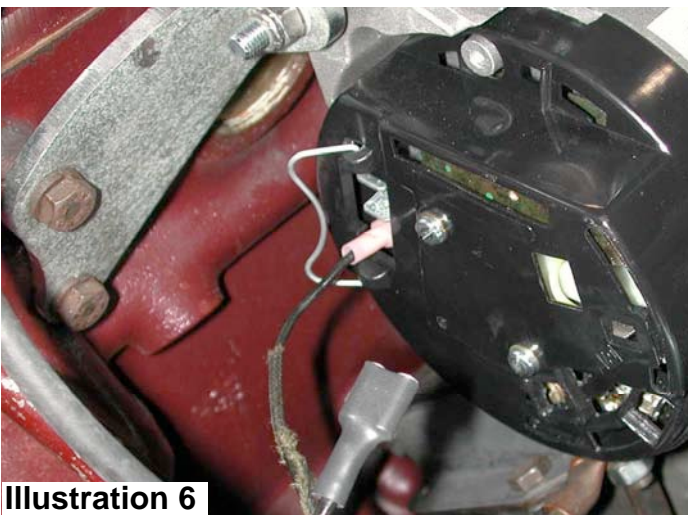


Illustration 6

8. Remove the regulator assembly using a phillips head screwdriver and turn it over. (See Illustration 7)

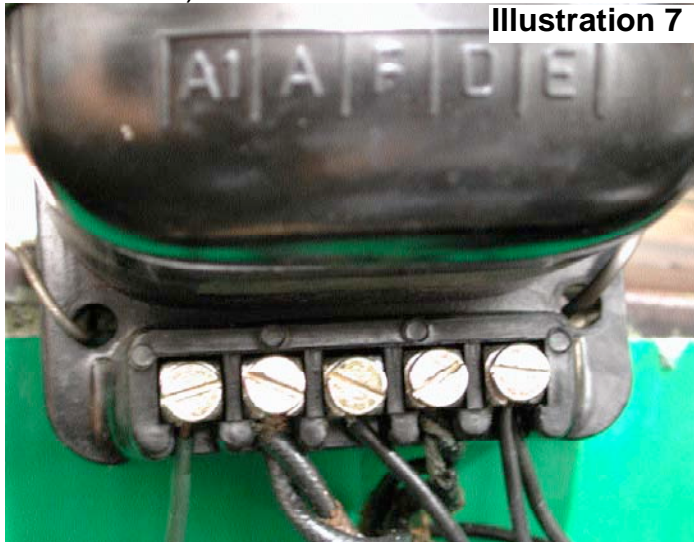


Illustration 7

If the posts on the regulator utilize spade connectors then move on to the next step. There are two Brown/Yellow wires at the "D" terminal. Remove the Brown/Yellow wire that connects to the generator from the "D" terminal using a medium flat blade screw driver. It might help to run a continuity test to make sure the right Brown/Yellow has been removed. Attach the Brown/Yellow wire to the "A" terminal. Remove the Brown/Green wire from the "F" terminal and attach to the "D" terminal in the same manner. (See Illustration 8)

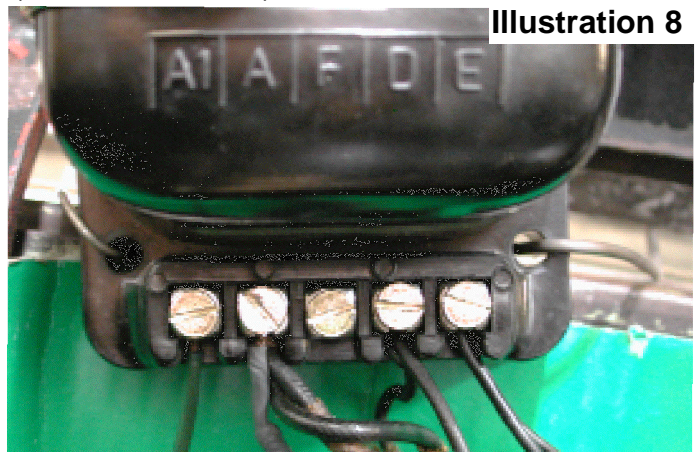


Illustration 8

9. For regulators that utilize spade connectors the wiring procedure is essentially the same as for the screw type regulator. There are two Brown/Yellow wires at the "D" terminal. Remove the Brown/Yellow wire that connected to the generator from the "D" terminal. This should be the wire with the larger spade con-

Installation Instructions

necter on it. It might help to run a continuity test to make sure the right Brown/Yellow has been removed. Remove the spade connector from the Brown/Yellow wire and strip off 1/4" of insulation. Insert the wire into the yellow male spade connector provided and crimp it in place using a set of wire crimpers. There should be two wires at the "A" terminal. Of these two wires, select the one that does not go to the battery and attach the yellow wire tap provided. This may require the use of pliers to effectively pierce through the insulation. The wire that goes to the battery should have the larger spade connector on it, but check the wiring diagram to make sure. Connect the Brown/Yellow wire(yellow male spade connector) and the yellow wire tap. (See Illustration 9)

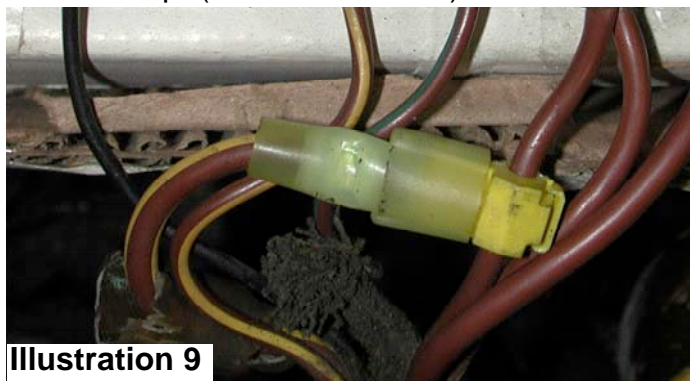


Illustration 9

Remove the Brown/Green wire from the "F" terminal and cut off the spade connector with a set of wire cutters. Strip the wire so that about 1/4" of insulation is removed. Attach the 3/8" female spade connector provided using a set of wire crimpers. Slide a 1" section of heat shrink provided over the spade connector and apply heat to set it in place. Attach the Brown/Green wire to the "D" terminal and remount the regulator.

10. Swap the connectors on the battery cables using a 7/16" wrench. Refit the battery making sure that the ground cable is attached to the negative post.

11. Turn the key to the on position and do not start it. Check all of the modified areas and insure that there is no sparking or smoke. Now start the car bring to steady idle. Attach a voltmeter to the battery terminals and verify that

the reading is greater than 13 volts. Rev the car up and verify that the voltage reading increases with RPM.

12. Enjoy your new Moss alternator conversion kit! See MossMotors.com for all your parts and accessories.



MG Midget and Austin-Healey Sprite Supercharger Alternator Conversion Installation Instructions

**FOR 1967-1969 Midget (from car# G-AN4-60460 to car# G-AN4-74885)
and Sprite (from car# H-AN9-72041 to car# H-AN9-77591)**

PART # 130-108

440 Rutherford St. P.O. Box 847 Goleta, CA 93117
1-800-667-7872 • FAX 805-692-2525 • www.mossmotors.com

Tools required: medium flat blade screwdriver, medium phillips screwdriver, 1/2" wrench, 7/16" wrench, 5/16" wrench, 9/16" socket, 1/2" socket, dead-blow hammer, air impact gun, 22mm socket, pry bar, wire cutters, wire crimpers, pliers, voltmeter.

Note: These instructions assume that the vehicle utilizes a negative ground.

Alternator Installation

1. Disconnect the battery using a 1/2" wrench.
2. Pull back on the dynamic tensioner and remove the drive belt from the pulleys.
3. Disconnect the wires connected to the back of the generator. Using a 1/2" socket and combination wrench, remove the bolt furthest from the engine, securing the generator link to the idler plate. Next, remove both generator pivot bolts. Pay close attention to the shim washer locations. Remove the generator from the car.
4. Using a 7/8" or 22 mm socket (this could be different for your car, use the appropriate socket) and a 1/2" impact wrench, remove the nut securing the pulley to the generator. To stop the fan from turning a carefully positioned rag can help. Slide the pulley off the generator

shaft. Install the new fan and generator pulley onto the alternator. It may be necessary to tap the pulley on with a dead-blow hammer. Note: the woodruff key has a tendency to slide out of its slot. Hold the woodruff key in place with a small screwdriver. Install the lock washer and start the nut. Tighten using the 1/2" impact wrench and a rag to hold the fan. The assembly is tight when the fan moves with the pulley and the lock washer is crushed. (See Illustration 1)

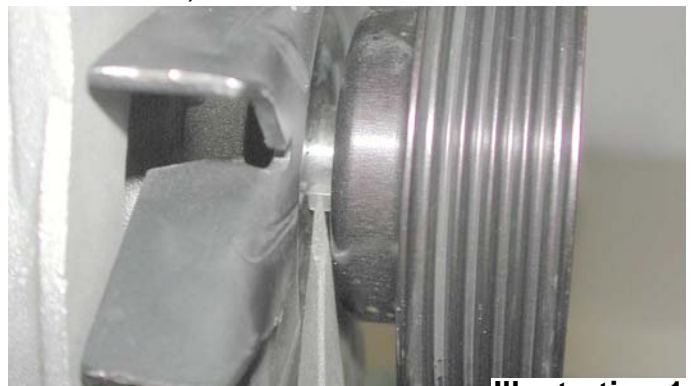


Illustration 1



Installation Instructions

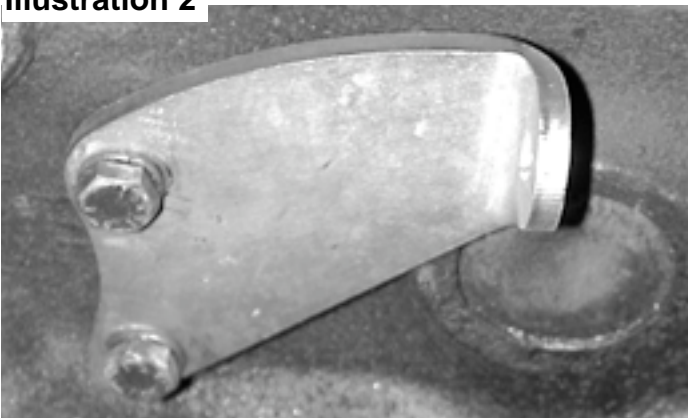


Illustration 1 cont't

5. Remove the rear bracket from the block using a 1/2" socket and replace it with the new bracket supplied in the kit (Moss part number 130-115) using the same hardware. Do not tighten down the bracket yet. (See Illustration 2)



Illustration 2



6. Loosen the pillar block nut so that the idler plate can be moved around. Install the alternator using the generator pivot bolts. The front bolt should go first through the idler plate, then through a washer, then the alternator ear, then the water pump ear and finally through the lock washer and nut. The rear bolt passes through the sleeve in the ear of the alternator, through the rear mount, and then through the lock washer and nut. Leave the bolts loose. Next,

use the included M8X25mm bolt to fasten the outermost alternator ear to the idler plate. Insert it through the plate, slip on a flat washer, then thread it into the alternator ear. Tighten the bolts starting with the front pivot bolt, the rear pivot bolt, the rear bracket bolts, the pillar block nut and finally the M8 bolt in the outermost alternator ear. (See Illustration 3)

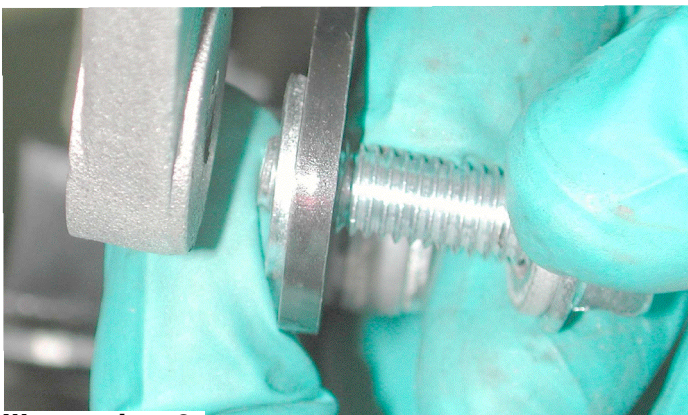
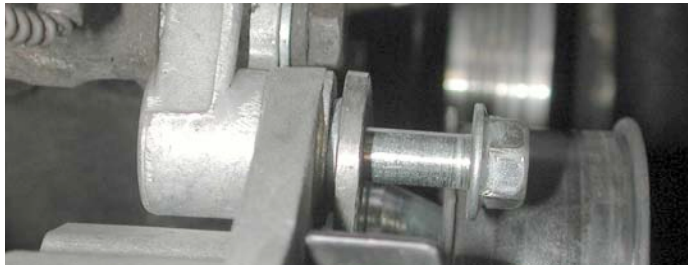
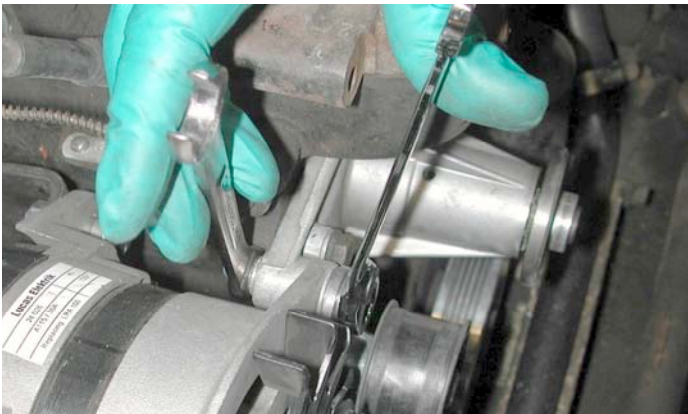
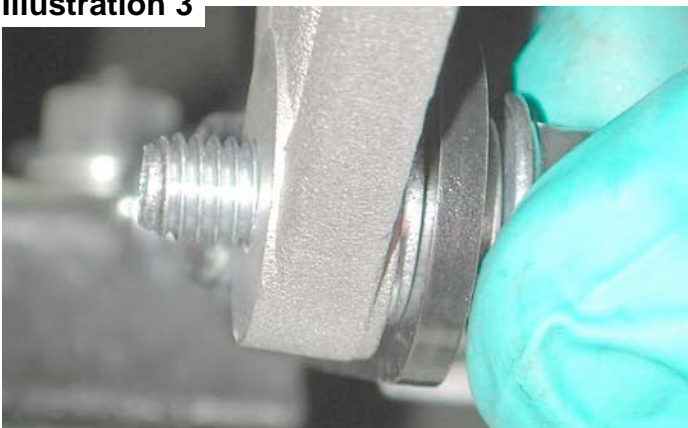


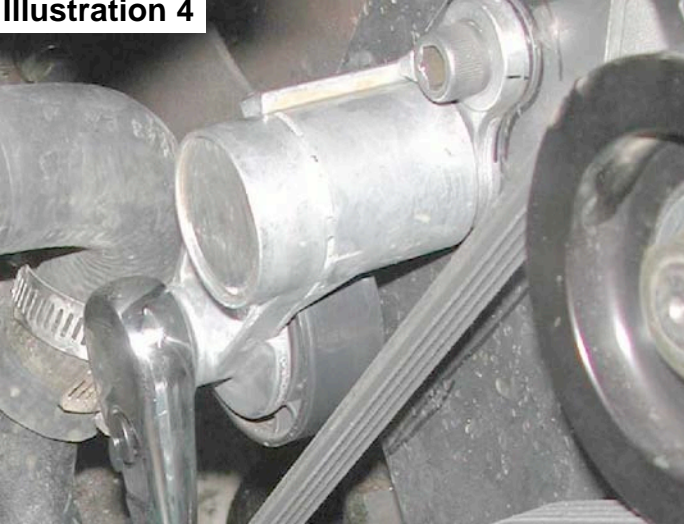
Illustration 3



Installation Instructions

7. Install the new drive belt by pulling back on the dynamic tensioner and slipping the belt on. Refer back to the supercharger instructions for belt alignment and adjustment. (See Illustration 4)

Illustration 4



8. Attach the Brown/Yellow and Brown/Green wires to the leads on the back of the alternator. If the wires are fitted with the ring type connectors then the female spade connectors will have to be installed. To do so, remove the ring type connectors with wire cutters and strip 1/4" of insulation off of each wire. Attach one of the two non-covered female spade connectors to the Brown/Yellow wire and a small red spade connector to the Brown/Green wire using wire crimpers. Use a 1" section of the heat shrink provided to cover the larger spade connector. The Brown/Yellow wire will go on either of the two larger leads and the Brown/Green wire will go on the smaller lead. (See Illustration 5)



Illustration 5

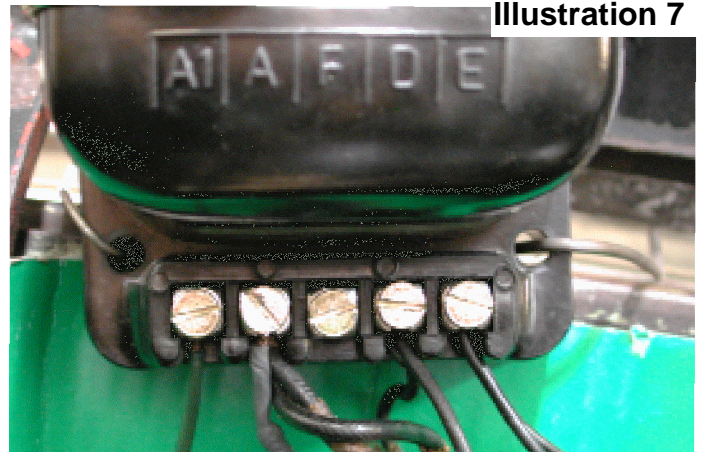
9. Remove the regulator assembly using a phillips head screwdriver and turn it over. (See Illustration 6)

Illustration 6



If the posts on the regulator utilize spade connectors then move on to the next step. There are two Brown/Yellow wires at the "D" terminal. Remove the Brown/Yellow wire that connects to the generator from the "D" terminal using a medium flat blade screw driver. It might help to run a continuity test to make sure the right Brown/Yellow has been removed. Attach the Brown/Yellow wire to the "A" terminal. Remove the Brown/Green wire from the "F" terminal and attach to the "D" terminal in the same manner. (See Illustration 7)

Illustration 7



10. For regulators that utilize spade connectors the wiring procedure is essentially the same as for the screw type regulator. There are two Brown/Yellow wires at the "D" terminal. Remove the Brown/Yellow wire that connected to the generator from the "D" terminal. This should be the wire with the larger spade con-

Installation Instructions

necter on it. It might help to run a continuity test to make sure the right Brown/Yellow has been removed. Remove the spade connector from the Brown/Yellow wire and strip off 1/4" of insulation. Insert the wire into the yellow male spade connector provided and crimp it in place using a set of wire crimpers. There should be two wires at the "A" terminal. Of these two wires, select the one that does not go to the battery and attach the yellow wire tap provided. This may require the use of pliers to effectively pierce through the insulation. The wire that goes to the battery should have the larger spade connector on it, but check the wiring diagram to make sure. Connect the Brown/Yellow wire(yellow male spade connector) and the yellow wire tap. (See Illustration 8)

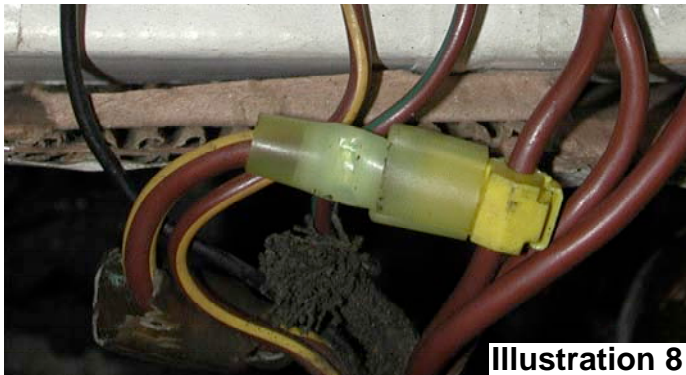


Illustration 8

Remove the Brown/Green wire from the "F" terminal and cut off the spade connector with a set of wire cutters. Strip the wire so that about 1/4" of insulation is removed. Attach the 3/8" female spade connector provided using a set of wire crimpers. Slide a 1" section of heat shrink provided over the spade connector and apply heat to set it in place. Attach the Brown/Green wire to the "D" terminal and remount the regulator.

11. Refit the battery making sure that the ground cable is attached to the negative post.

12. Turn the key to the on position and do not start it. Check all of the modified areas and insure that there is no sparking or smoke. Now start the car bring to steady idle. Attach a voltmeter to the battery terminals and verify that the reading is greater than 13 volts. Rev the car up and verify that the voltage reading increases with RPM.

13. Enjoy your new Moss alternator conversion kit! See MossMotors.com for all your parts and accessories.



MG Midget and Austin-Healey Sprite Supercharger Alternator Conversion Installation Instructions

**FOR 1969-1971 Midget (from car# G-AN5-74886 on)
and Sprite (from car# H-AN9-77591 on)**

PART # 130-108

440 Rutherford St. P.O. Box 847 Goleta, CA 93117
1-800-667-7872 • FAX 805-692-2525 • www.mossmotors.com

Tools required: medium flat blade screwdriver, medium phillips screwdriver, 1/2" wrench, 7/16" wrench, 5/16" wrench, 9/16" socket, 1/2" socket, dead-blow hammer, air impact gun, 22mm socket, pry bar, wire cutters, wire crimpers, pliers, voltmeter.

Note: These instructions assume that the vehicle utilizes a negative ground.

Alternator Installation

1. Disconnect the battery using a 1/2" wrench.
2. Pull back on the dynamic tensioner and remove the drive belt from the pulleys.
3. Disconnect the wires connected to the back of the generator. Using a 1/2" socket and combination wrench, remove the bolt furthest from the engine, securing the generator link to the idler plate. Next, remove both generator pivot bolts. Pay close attention to the shim washer locations. Remove the generator from the car.
4. Using a 7/8" or 22 mm socket (this could be different for your car, use the appropriate socket) and a 1/2" impact wrench, remove the nut securing the pulley to the generator. To stop the fan from turning a carefully positioned rag can

help. Slide the pulley off the generator shaft. Install the new fan and generator pulley onto the alternator. It may be necessary to tap the pulley on with a dead-blow hammer. Note: the woodruff key has a tendency to slide out of its slot. Hold the woodruff key in place with a small screwdriver. Install the lock washer and start the nut. Tighten using the 1/2" impact wrench and a rag to hold the fan. The assembly is tight when the fan moves with the pulley and the lock washer is crushed. (See Illustration 1)

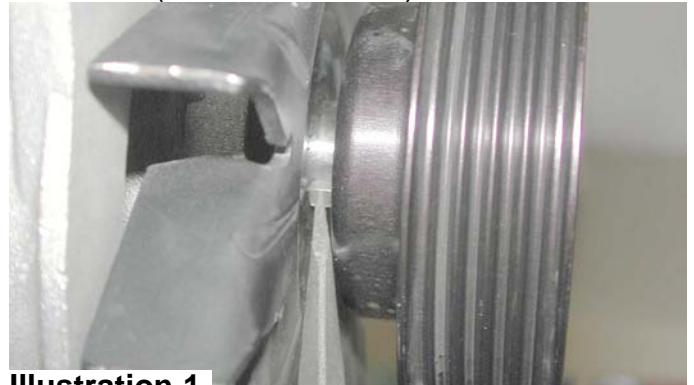


Illustration 1



Installation Instructions

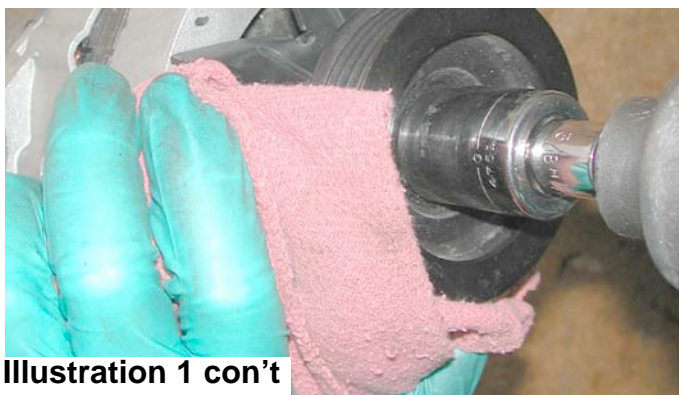


Illustration 1 con't

5. Remove the rear bracket from the block using a 1/2" socket and replace it with the new bracket supplied in the kit (Moss part number 130-115) using the same hardware. Do not tighten down the bracket yet. (See Illustration 2)

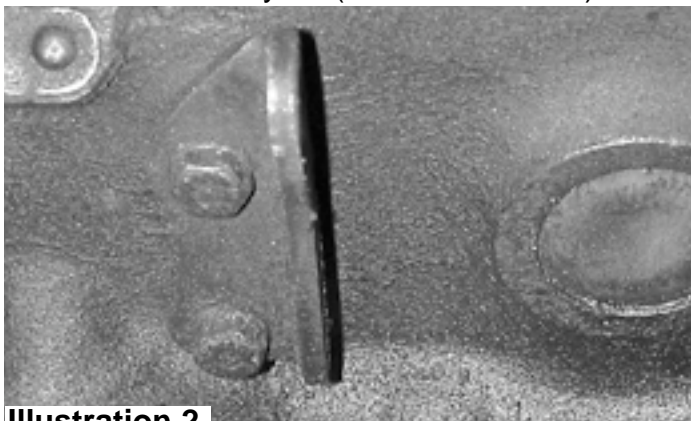
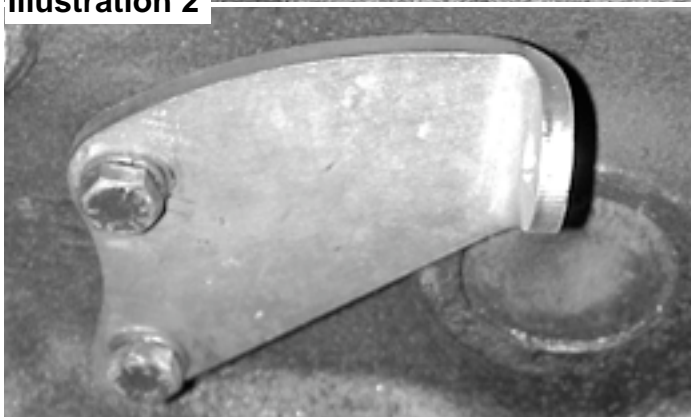


Illustration 2



6. Loosen the pillar block nut so that the idler plate can be moved around. Install the alternator using the generator pivot bolts. The front bolt should go first through the idler plate, then through a washer, then the alternator ear, then the water pump ear and finally through the lock washer and nut. The rear bolt passes through the sleeve in the ear of the alternator, through the rear mount, and then through the lock washer and nut. Leave the bolts loose. Next, use the included M8X25mm bolt to fasten the outermost

alternator ear to the idler plate. Insert it through the plate, slip on a flat washer, then thread it into the alternator ear. Tighten the bolts starting with the front pivot bolt, the rear pivot bolt, the rear bracket bolts, the pillar block nut and finally the M8 bolt in the outermost alternator ear. (See Illustration 3)

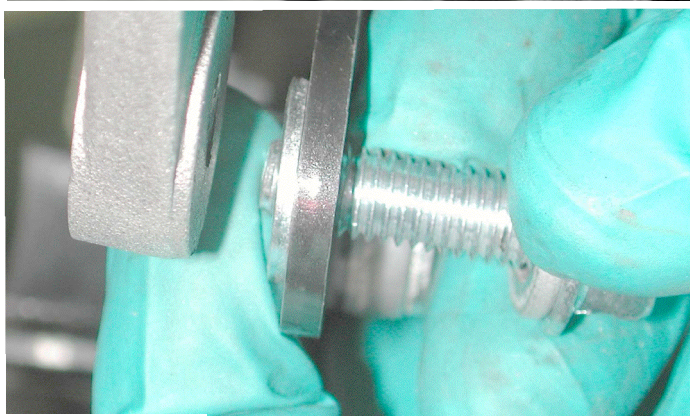
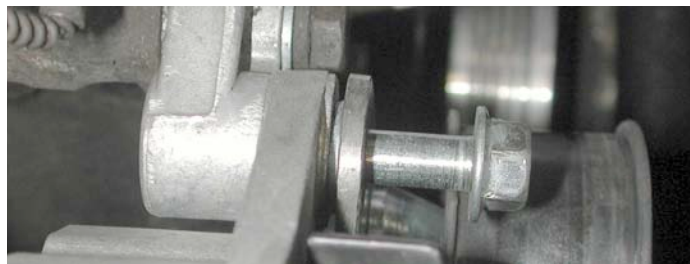
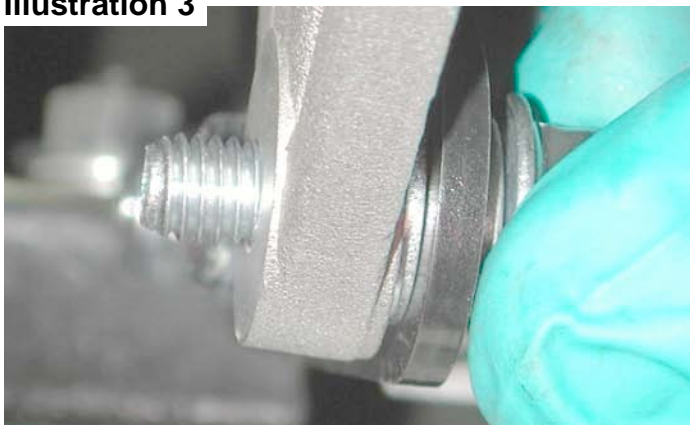


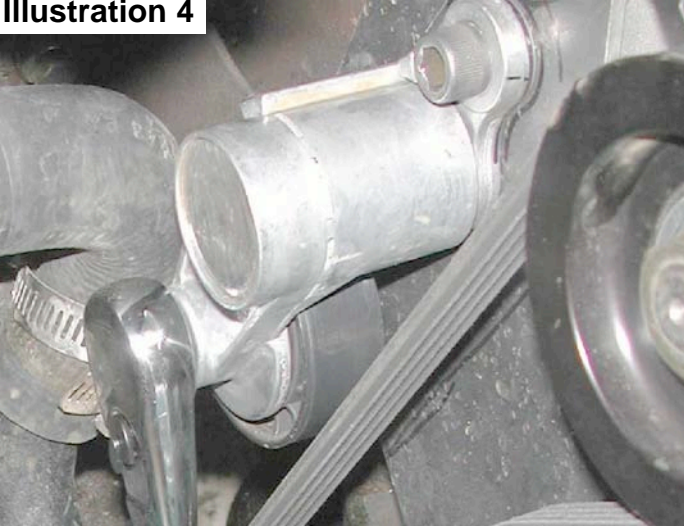
Illustration 3



Installation Instructions

7. Install the new drive belt by pulling back on the dynamic tensioner and slipping the belt on. Refer back to the supercharger instructions for belt alignment and adjustment. (See Illustration 4)

Illustration 4



8. Attach the Brown/Yellow and Brown/Green wires to the leads on the back of the alternator. If the wires are fitted with the ring type connectors then the female spade connectors will have to be installed. To do so, remove the ring type connectors with wire cutters and strip 1/4" of insulation off of each wire. Attach one of the two non-covered female spade connectors to the Brown/Yellow wire and a small red spade connector to the Brown/Green wire using wire crimpers. Use a 1" section of the heat shrink provided to cover the larger spade connector. The Brown/Yellow wire will go on either of the two larger leads and the Brown/Green wire will go on the smaller lead. (See Illustration 5)

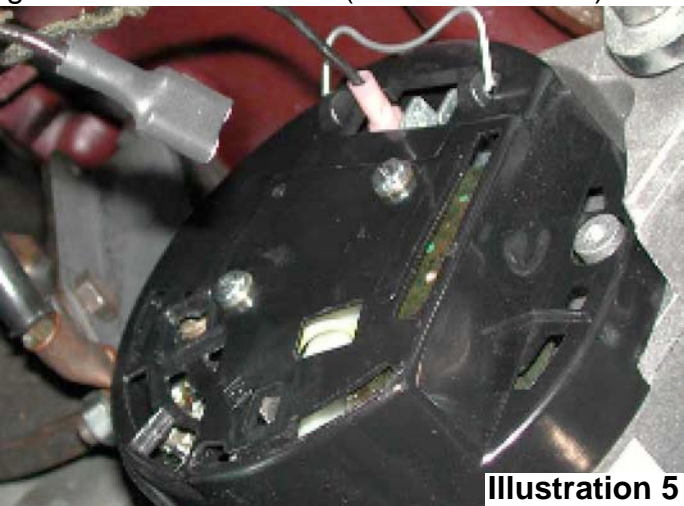


Illustration 5

9. Remove the regulator assembly using a phillips head screwdriver and turn over. (See Illustration 6)



Illustration 6

Remove the Brown/Yellow wire on the "D" terminal and cut off the spade connector with a set of wire cutters. Strip the wire so that about 1/4" of insulation is removed. (See Illustration 7)



Illustration 7

Insert the wire into the yellow male spade connector provided and crimp it in place using a set of wire crimpers. (See Illustration 8)



Illustration 8

There are two posts with three brown wires at the "B" terminal. Select the post with the spade

Installation Instructions

connector that merges two wires and attach the yellow wire tap provided. This may require the use of a set of pliers to effectively pierce through the wire. It is important that the yellow wire tap not be attached to the brown wire that goes to the battery. If there is any doubt as to which wire goes to the battery refer to a wiring diagram.(See Illustration 9)

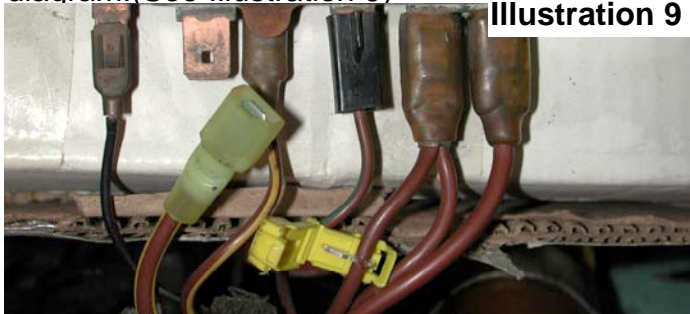


Illustration 9

Connect the Brown/Yellow (yellow male spade connector) and the Brown wire (yellow wire tap).(See Illustration 10)

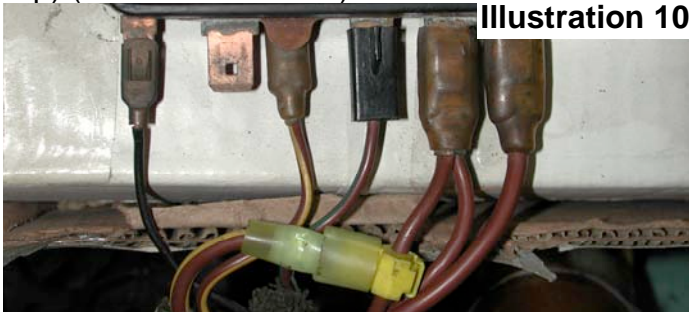


Illustration 10

Remove the Brown/Green wire from the "F" terminal and cut off the spade connector with a set of wire cutters. Strip the wire so that about 1/4" of insulation is removed.(See Illustration 11)

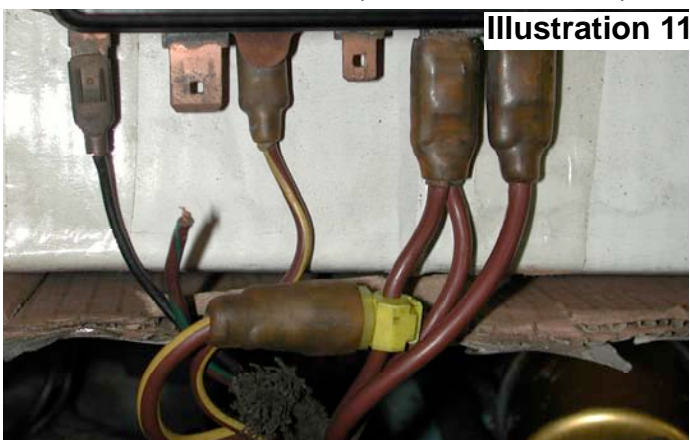


Illustration 11

Attach the 3/8" female spade connector provided using a set of wire crimpers.(See Illustration 12)

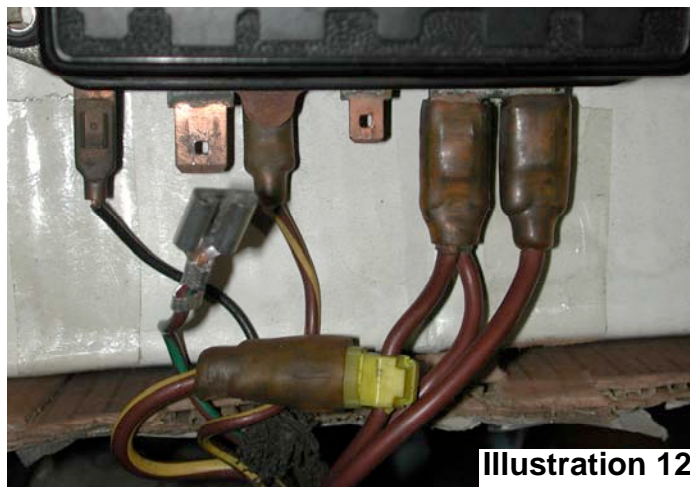


Illustration 12

Slide the section of heat shrink provided over the spade connector and apply heat to set it in place.(See Illustration 13)



Illustration 13

Attach the Brown/Green wire to the "D" and mount the regulator.

10. Refit the battery making sure that the ground cable is attached to the negative post.

11. Turn the key to the on position and do not start it. Check all of the modified areas and insure that there is no sparking or smoke. Now start the car bring to steady idle. Attach a voltmeter to the battery terminals and verify that the reading is greater than 13 volts. Rev the car up and verify that the voltage reading increases with RPM.

12. Enjoy your new Moss alternator conversion kit! See MossMotors.com for all your parts and accessories.