



A/C Alternator Kit

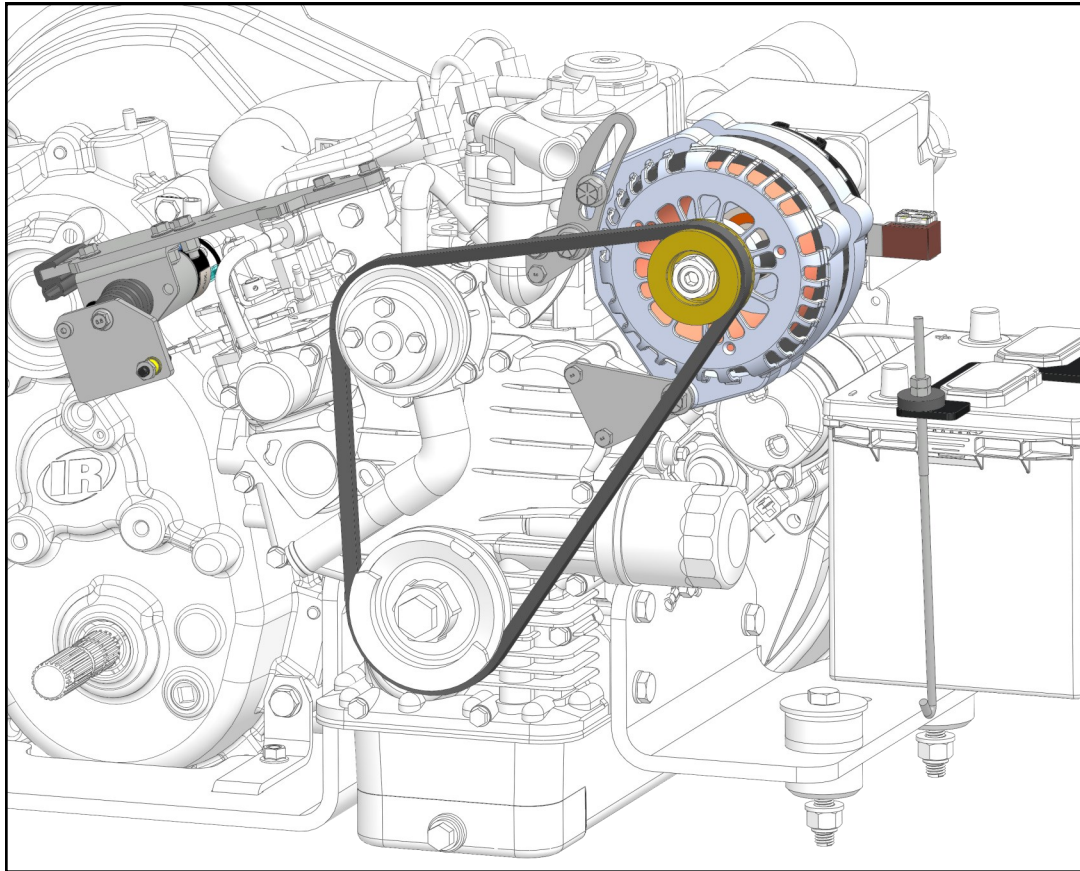
p/n: 1ACCA15DRK

**Fits Club Car Carryall 1500, XRT 1550
Carryall 1700 and XRT 1550 SE models**

Must be installed with Curtis cab: 47617513001 or 47617514001

Must be installed with Curtis Air Conditioner: 1ACUNIT-G2

Must be installed with Curtis Roof Kit: 1ACCA15RFK or 1ACCA17RFK



Approximate Installation Time *

Experienced Dealer Technician – 2 Hour

Average Dealer Technician – 3 Hours

Do-It-Yourself – 4 Hours

(* = Not including cab & other accessories)

Approximate Product Specifications

Weight: 32 lbs. (not including 1ACUNIT-G2)

The contents of this envelope are the property of the owner. Leave with the owner when installation is complete.

Rev. B, 03/23/2023

p/n: IM-1ACCA15DRK

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WARNINGS, TIPS, & REQUIRED TOOLS

For accurate installation, proper operation, and years of satisfaction, please read and understand the installation and owner's manual fully prior to installing this accessory.

From all of us at Curtis, we thank you for choosing our product.

NOTICE

Curtis Cabs, blades and general accessories add additional weight to the base vehicle. All Curtis accessory weights are listed in product brochures. Deduct the accessory's total weight from the vehicle's rated capacity and never exceed the vehicle's rated capacity including driver and passenger.

California Health and Safety Proposition 65 Warning:
This product may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

GENERAL INFORMATION BEFORE YOU START

HELPFUL HINTS:

- To assist with installation, leave all fasteners loose for later adjustment unless otherwise specified.
- Read and understand all instructions before beginning.
- Apply a silicone sealant to seal any minor gaps that may occur due to vehicle variations.
- Caution: Never turn the air conditioner upside down or on its side.

TOOLS REQUIRED:

- Set of metric & standard sockets
- Set of metric & standard open-end wrenches
- Inch series Allen wrenches
- Ratchet, extension, swivel
- #2 and #3 Phillips head screwdriver
- Scissors or Snips
- Anti seize
- 9/32", 3/16", 7/16", 1/4" and 5/8" drill bits
- Hand Drill
- Wire Cutters

A/C ALTERNATOR KIT INSTALLATION

STEP 1: (VEHICLE PREP)

- 1.1 Install the A/C roof and A/C unit to the cab per the instructions included with the roof kit
- 1.2 Remove the seat from the vehicle. Remove the front cover from the seat base held by (4) screws. See Figure 1.2.

NOTE: For Carryall 1700 and XRT 1550 SE models, remove the rear seat and front cover from the rear seat base.

Tools

#3 Phillips screwdriver

- 1.3 Disconnect both wires from the battery, negative then positive. Remove the front battery bracket and then remove the factory battery and set a side. See Figure 1.3.

Tools

1/2" socket and wrench

- 1.4 Drill out the (2) Rivets holding the rear bracket in-place, see figure 1.4. Discard old bracket.

Tools

3/16" drill bit

Hand Drill

- 1.5 Drill out rear battery mounting hole as shown in figure 1.5.

Tools

1/4" drill bit

Hand Drill

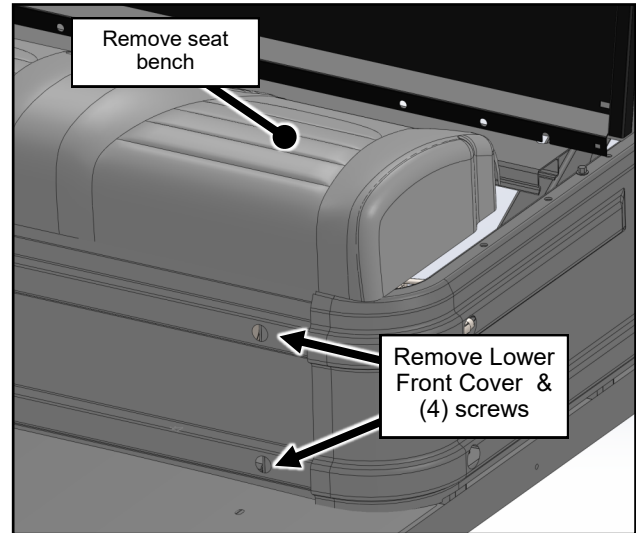


Fig. 1.2 (Remove seat bench and cover)

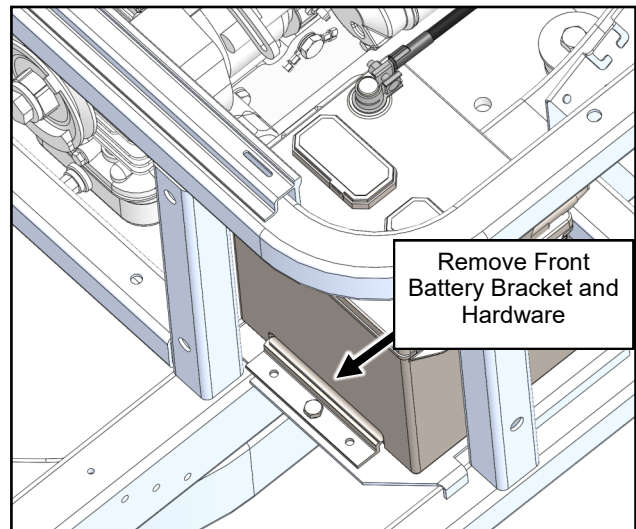


Fig. 1.3 (Remove Battery)

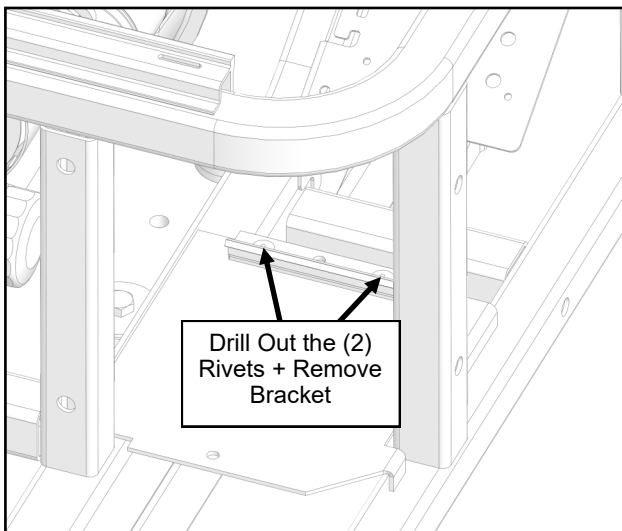


Fig. 1.4 (Remove Rear Battery Bracket)

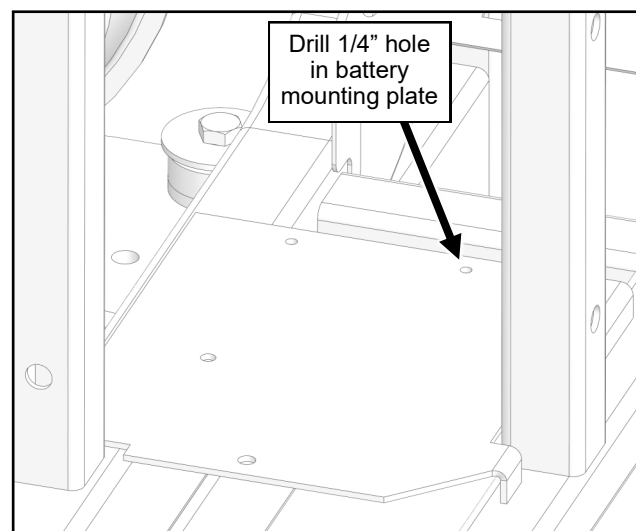


Fig. 1.5 (Drill Battery Mounting Plate)

A/C ALTERNATOR KIT INSTALLATION

STEP 1: (VEHICLE PREP cont'd.)

- 1.6 Disconnect the power wire and the white 2-pin connector from the factory Alternator. See Figure 1.6.

Disconnect the plug from the coolant temperature sensor above the alternator, and cut the wire tie holding the harness to the alternator bracket.

Tools

10mm wrench or socket
Wire clippers

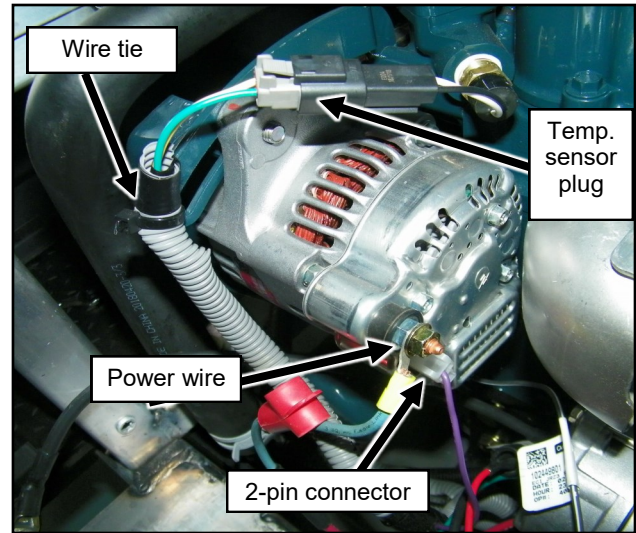


Fig. 1.6 (Disconnect alternator)

STEP 2: (RE-INSTALL BATTERY)

- 2.1 Place factory battery back onto battery mounting bracket as shown in figure 2.1
- 2.2 Place battery mounting strap onto battery with narrow side of strap on the negative terminal side as shown in figure 2.2.

Tools

10mm wrench or socket
Wire clippers

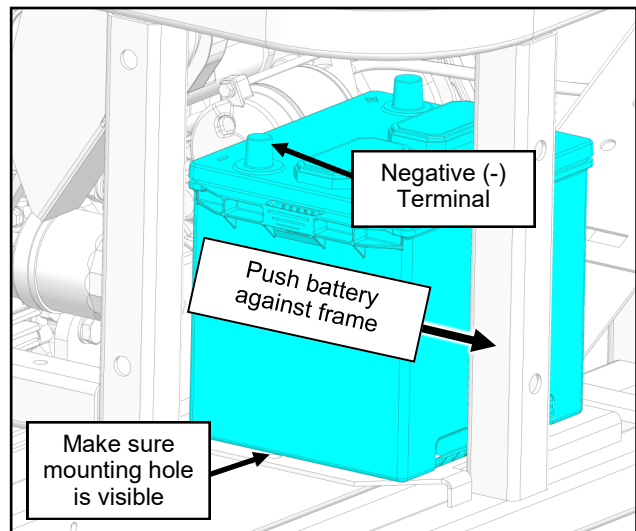


Fig. 2.1 (Re-Install Battery, Rotated 90 deg.)

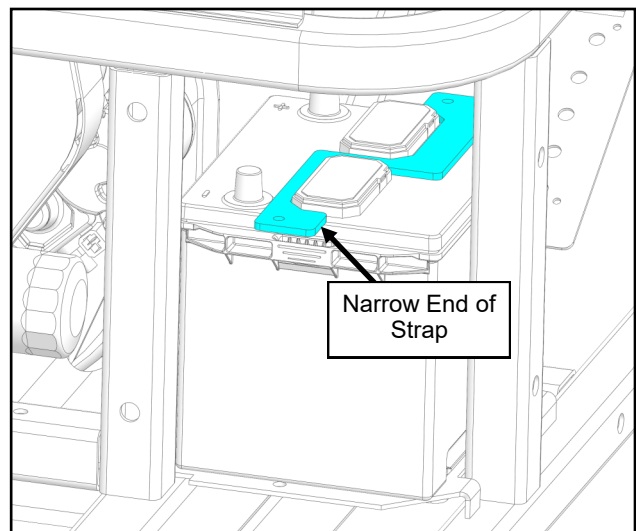


Fig. 2.2 (Install Battery Hold Down Strap)

A/C ALTERNATOR KIT INSTALLATION

STEP 2: (RE-INSTALL BATTERY cont'd.)

- 2.3 Install J-Bolts by sliding them from underneath the battery mounting bracket towards the battery strap as shown on figure 2.3. Make sure the hook on the J-Bolt is towards the edge of the mounting bracket. Next, install rubber washers and then the first set of 1/4-20 hex nuts onto the thread of the J-Bolt. Tightening the lower nuts to the rubber washers first. Then install and lock the second set of nuts against the first set.

Hardware Used

	Qty
1/4-20 x 10" J-Bolt	2
1/4" Fender Rubber Washers	2
1/4-20 Hex Nuts, ZC	4

Tools

7/16" wrench or socket

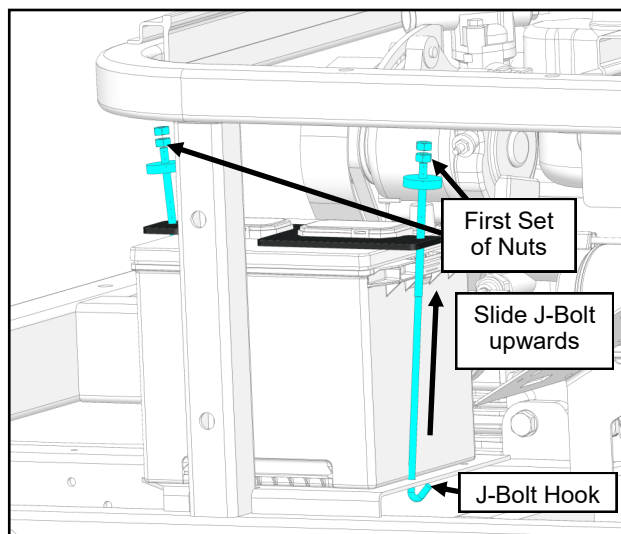


Fig. 2.3 (Install J-Bolts)

STEP 3: (ALTERNATOR INSTALL)

- 3.1 Remove two M8 bolts holding the V-belt guard shown in Figure 3.1. Remove the guard, factory Alternator, and V-belt.

Tools

10mm and 12mm wrench and socket

- 3.2 Remove two M6 bolts holding the upper alternator bracket. Shown in Figure 3.2.

Tools

10mm socket

CAUTION: Do not remove bolts from the engine until instructed to do so, to avoid breaking engine seals.

- 3.3 Install alternator mounting brackets per Figure 3.3. Tighten bolts.

Hardware Used

	Qty
M6 x 16mm flanged hex bolt	1
M6 x 60mm hex bolt	1

Tools

10mm socket

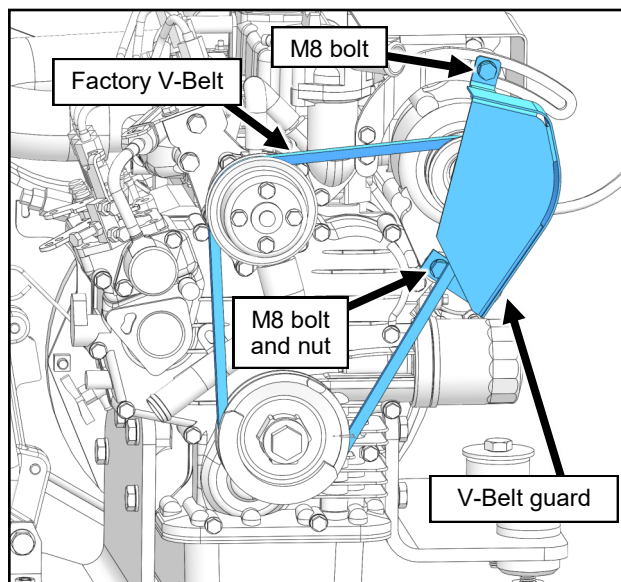


Fig. 3.1 (Remove Alternator and guard)

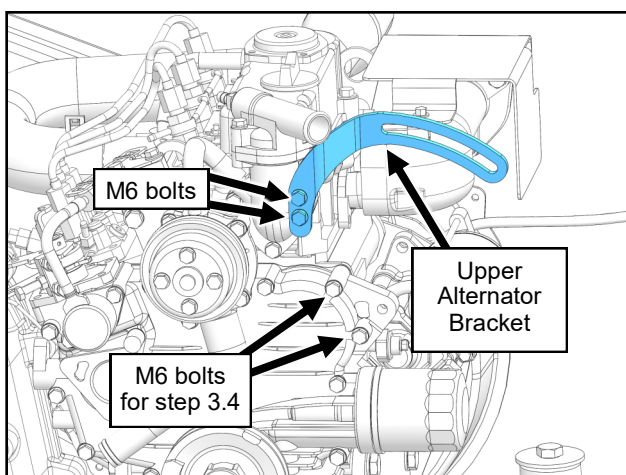


Fig. 3.2 (Remove Upper Alternator Bracket)

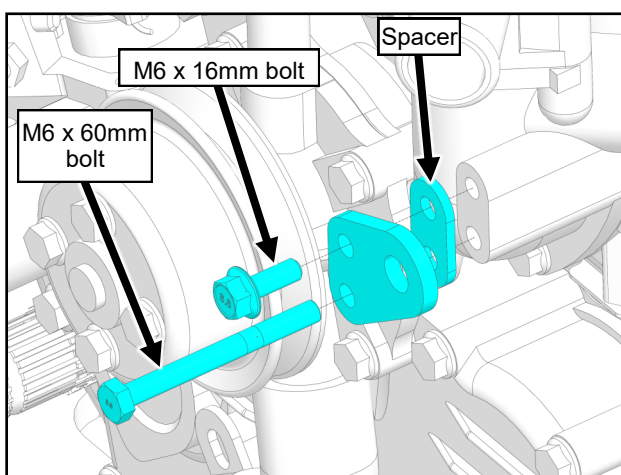


Fig. 3.3 (Alternator mounting brackets)

A/C ALTERNATOR KIT INSTALLATION

STEP 3: (ALTERNATOR INSTALL cont'd.)

- 3.4 Remove and discard two M6 bolts from the engine as shown in Figure 3.2 and install the lower front alternator mounting bracket and spacers as shown in Figure 3.4. Tighten bolts.

Hardware Used

M6 x 60mm hex bolts

Qty
2

Tools

10mm socket

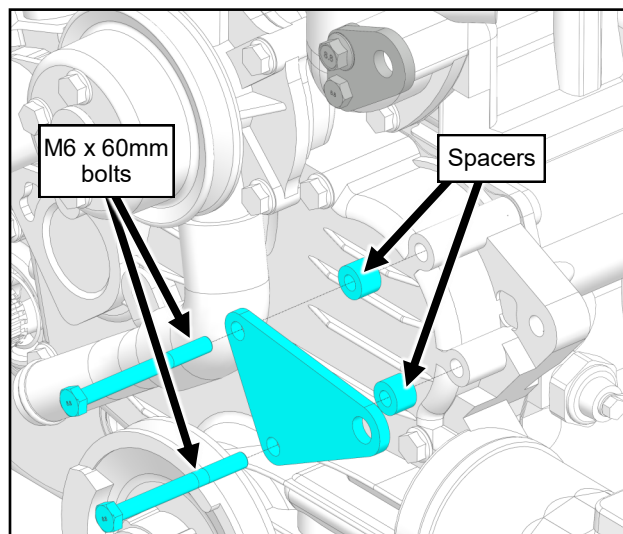


Fig. 3.4 (Alternator mounting bracket)

- 3.5 Install P-Clamp to radiator hose, so hose is against vehicle's frame as shown in Figure 3.5. Locate as high as possible to ensure adequate clearance with any moving parts.

Hardware Used

#12 x 3/4" self-drill screw

1-1/4" rubber-coated P-Clamp

Qty
1
1

Tools

#3 Phillips head screwdriver

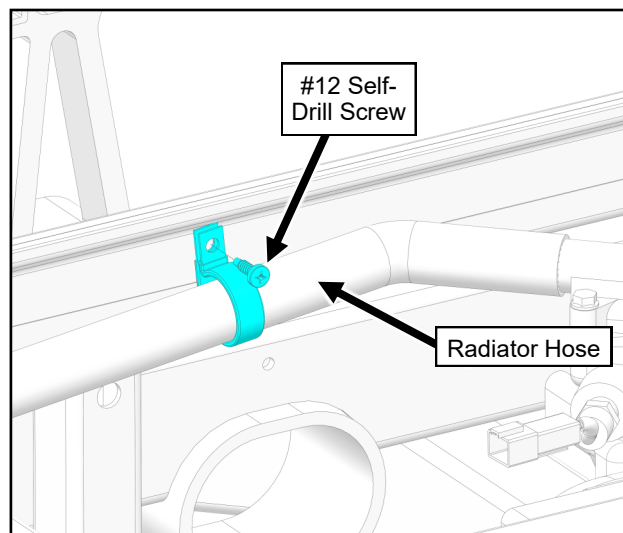


Fig. 3.5 (Install P-Clamp)

- 3.6 Install alternator adjustment plate to upper ear of the alternator per Figure 3.6. Leave bolt finger tight.

Hardware Used

3/8-16 x 3" flanged hex bolt

3/8-16 flanged hex nylon lock nut

Qty
1
1

Tools

9/16" wrench and socket

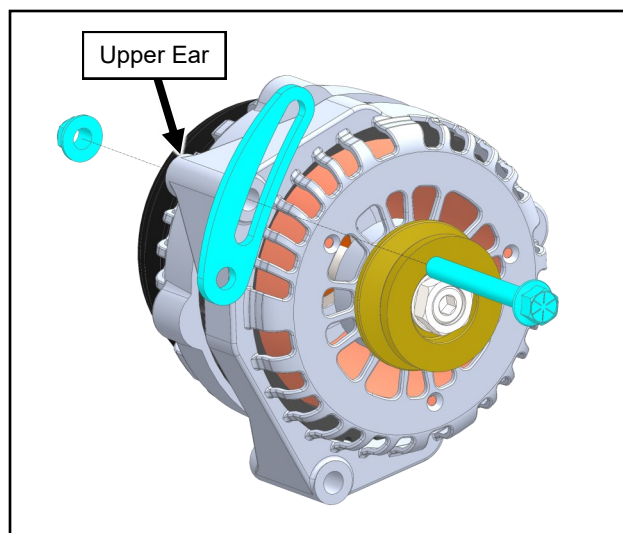


Fig. 3.6 (Install Adjustment Bracket onto Alternator)

A/C ALTERNATOR KIT INSTALLATION

STEP 3: (ALTERNATOR INSTALL cont'd.)

- 3.7 Install lower rear alternator mounting bracket per Figure 3.7. Leave bolt finger tight.

Hardware Used

M8 x 30mm flanged hex bolt

Qty

1

Tools

13mm socket

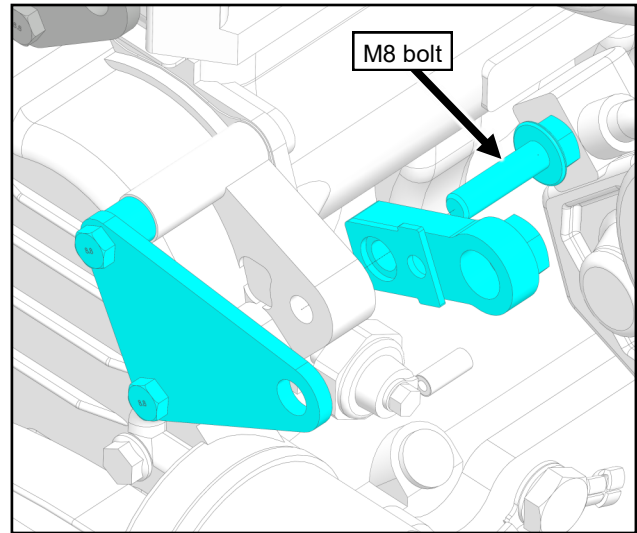


Fig. 3.7 (Lower Rear Bracket)

- 3.8 Install the new alternator and adjustment plate to the brackets with (2) 3/8" bolts and nuts per Figure 3.8.

Hardware Used

3/8-16 x 1" flanged hex bolt

Qty

1

3/8-16 x 3" flanged hex bolt

1

3/8-16 flanged hex nylon lock nut

2

Tools

9/16" wrench and socket

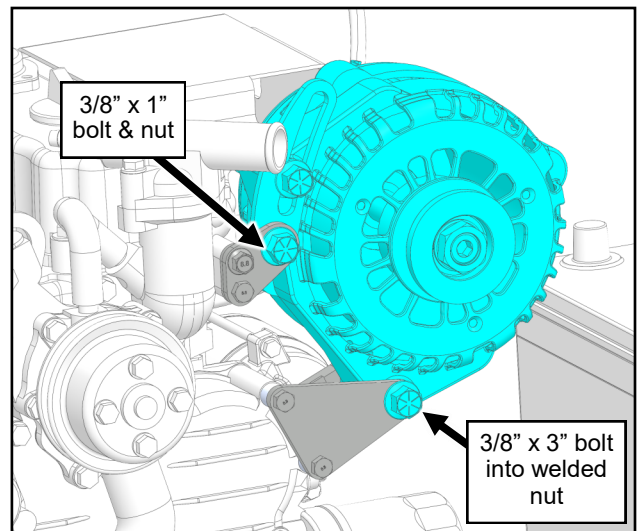


Fig. 3.8 (Alternator and Adjustment Plate)

- 3.9 Install the new V-belt included with the A/C kit onto the engine and alternator per figure 3.9. Tension the V-belt and tighten the upper 3/8" bolt and nut, then tighten the other two 3/8" bolts and nuts.

Tighten the M8 bolt holding the lower rear bracket to the engine.

Tools

9/16" wrench and socket

13mm Socket

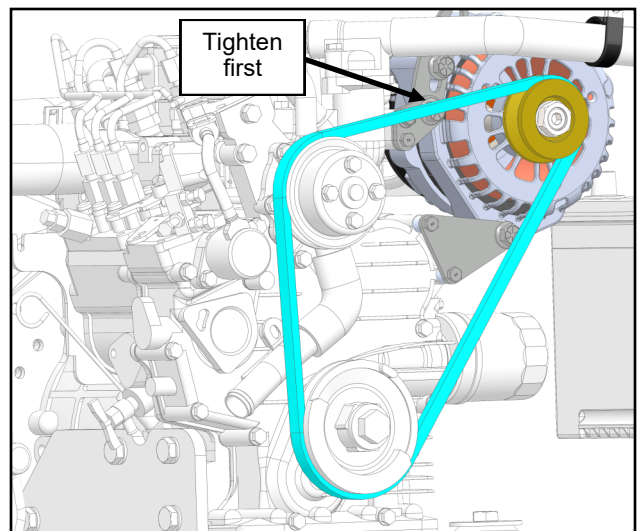


Fig. 3.9 (V-Belt Installation)

A/C ALTERNATOR KIT INSTALLATION

STEP 4: (SOLENOID ASSEMBLY)

- 4.1 Per Figure 4.1, remove (2) M6 bolts from the tie-down plate located at the top front of the engine.

Tools

10mm wrench or socket

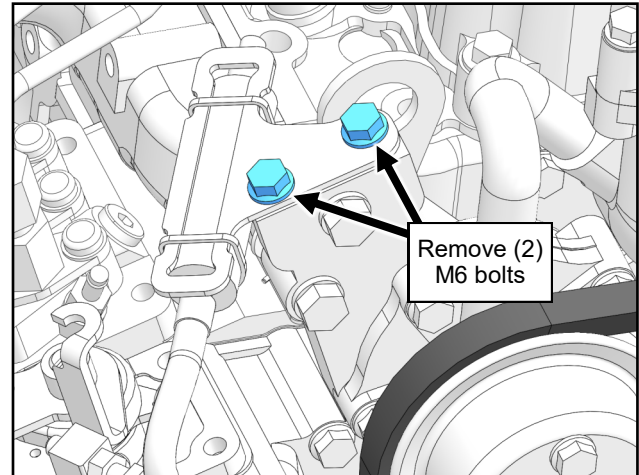


Fig. 4.1 (Remove M6 bolts from Tie-down plate)

- 4.2 Per Figure 4.2, install the solenoid assembly on top of the tie-down plate, where the bolts were removed in step 4.1.

IMPORTANT: Make sure the engine mounting surface is clean of rust, oil, or corrosion.

NOTE: If a heater kit is installed, use the holes in the solenoid mounting plate to secure the heater hoses with wire ties.

Hardware Used

M6 x 20mm flanged hex bolt

Qty
2

Tools

10mm and 12mm wrenches or sockets

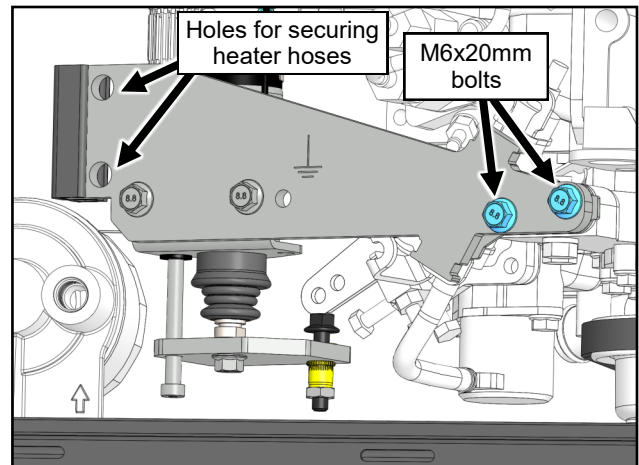


Fig. 4.2 (Solenoid assembly)

- 4.3 Per Figure 4.3, compress the solenoid by hand and adjust the 1/4-20 bolt using fingers so that it is bumping up against the throttle arm.

IMPORTANT: Do not put any pre-load onto the throttle at this time.

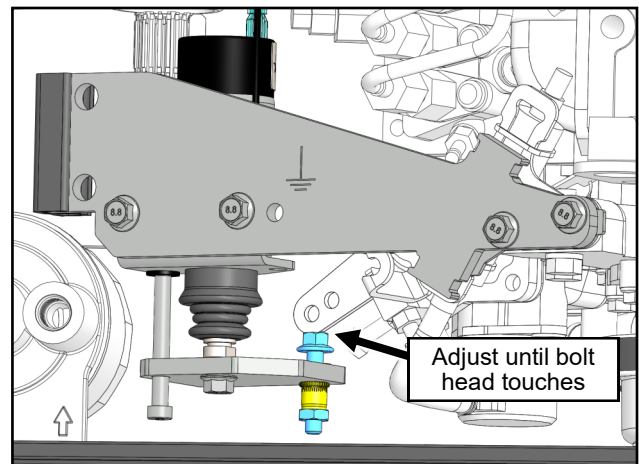


Fig. 4.3 (Solenoid adjustment)

A/C ALTERNATOR KIT INSTALLATION

STEP 5: (ALTERNATOR WIRING)

NOTE: The roof kit instruction should have left the A/C power harness from the A/C unit routed into the engine compartment, through the plastic trim at the right-rear.

- 5.1** Route the A/C power harness around the front of the engine compartment and secure to the frame with two P-Clamps, rubber-insulated rivet nuts into the 1/2" holes in the frame and 1/4-20 bolts as shown in Figure 5.1.
Note: locate the union in the main power harness roughly as shown.

Hardware Used

7/8" rubber-coated P-Clamp	Qty 2
1/4-20 x 1" flanged hex bolt	2
1/4-20 rubber-insulated brass rivet nut	2

Tools

3/8" socket

- 5.2** Connect the large black wire from the A/C power harness to the hole in the solenoid bracket as shown in Figure 5.1.

Hardware Used

M6x20mm Bolt	Qty 1
M6 Locknut	1

Tools

10mm wrench and socket

- 5.3** Connect the orange wire from the power harness to the (+) terminal on the back of the solenoid per Figure 5.3.

- 5.4** Pull all A/C Power Harness wires tight toward the battery and tighten a wire tie around the harness.

- 5.5** Install the supplied 100 amp fuse block and fuse onto the alternator per Figure 5.5, along with the factory alternator power wire. Connect the A/C power harness red wire to the fuse holder with a 1/4-20 lock nut.

Hardware Used

1/4-20 hex lock nut	Qty 1
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Tools

10mm socket

7/16" socket

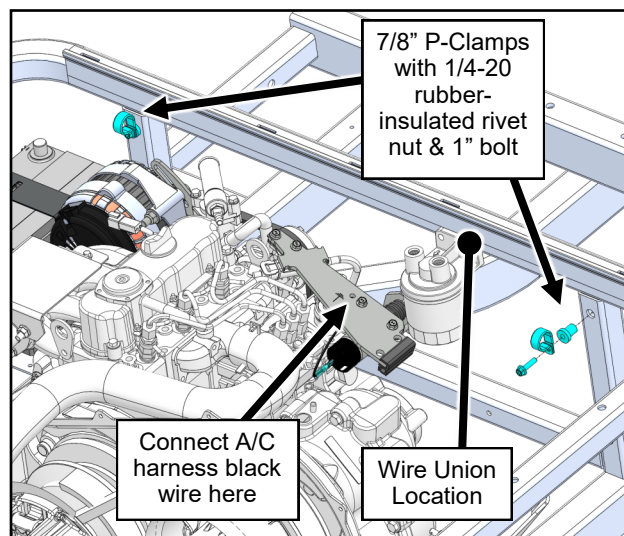


Fig. 5.1 (A/C Power Harness)

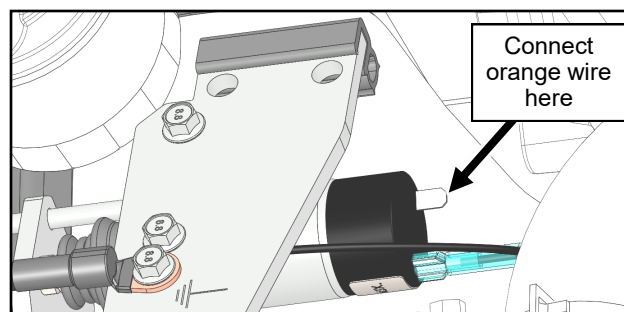


Fig. 5.3 (Orange wire to solenoid)

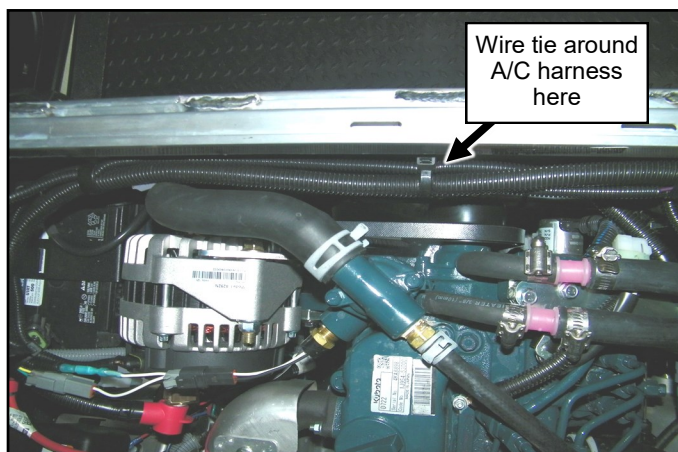


Fig. 5.4 (Wire tie power harness away from V-Belt)

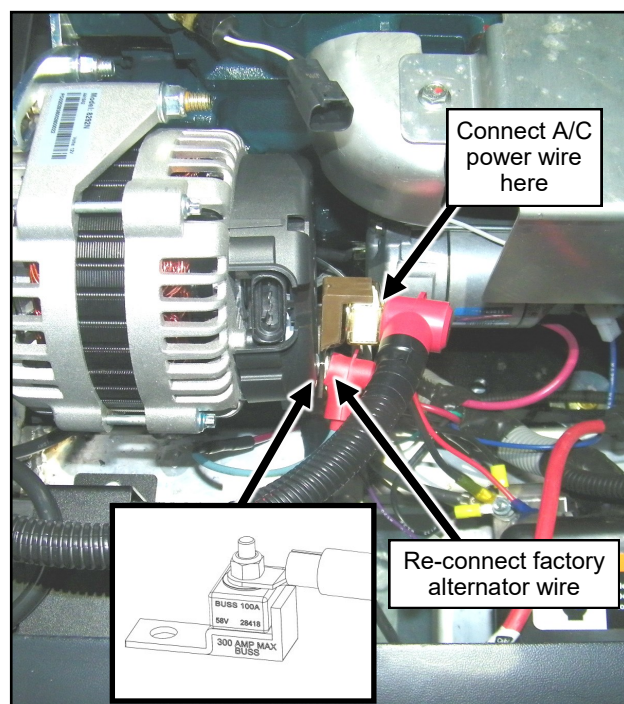


Fig. 5.5 (Connect power to alternator)

A/C ALTERNATOR KIT INSTALLATION

STEP 5: (ALTERNATOR WIRING cont'd.)

- 5.6** Per Figure 5.6, connect the fan interface harness in-line between the factory coolant temperature sensor and harness that was disconnected in step 1.6.

Connect the white wire from the A/C power harness to the fan interface harness.

Connect the 4-pin connector from the A/C power harness to the alternator.

Connect the 2-pin harness from the A/C power harness to the white factory 2-pin alternator connector.

CAUTION: *Be sure to tie all wire harnesses to keep them away from the alternator. This alternator gets hot during operation and could melt the protective coverings on any harnesses in close proximity.*

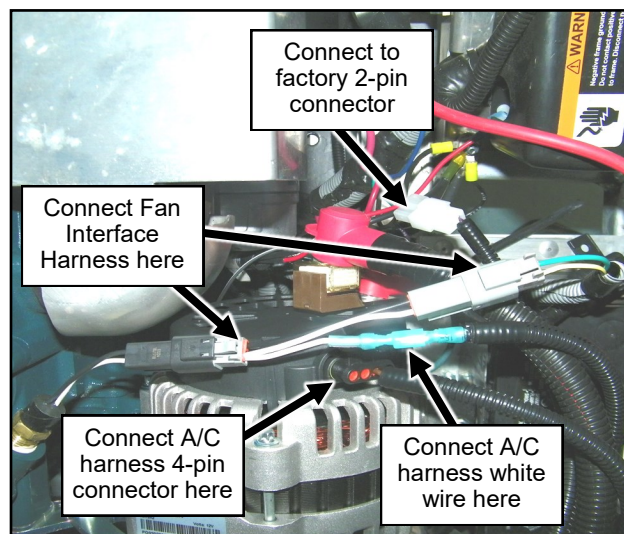


Fig. 5.6 (A/C Power Harness)

STEP 6: (FINISHING TOUCHES)

- 6.1** Inspect V-Belt for tightness. Adjust as necessary.
- 6.2** Inspect all fasteners, they should be fully tightened before starting the vehicle.
- 6.3** Inspect all wires to make sure they are correctly attached and sufficiently secured away from hot or moving parts. If needed, use extra wire ties supplied to tie-down loose wires.
- 6.4** Re-connect the positive then negative battery terminals.
- 6.5** Start the vehicle and turn on the air conditioner. The blue rocker switch should have the blue light illuminated. Run the engine at idle. The engine rpm will drop and the engine may surge under the load of the air conditioner.

Cool air should begin to flow after 60 to 90 seconds. Verify that the air conditioner is functioning. If it is not functioning, refer to the troubleshooting section in the A/C manual.

- 6.6** Verify that the solenoid installed in step 4.2 is retracted inwards. Adjust the 1/4-20 idle screw shown in step 4.3 until the engine rpm returns to the proper setting and the engine is no longer surging. Tighten the jam nut.

NOTE: The solenoid is only powered when the A/C is on.

Tools

3/8" open end wrench
7/16" wrench or socket

- 6.7** Turn the air conditioner off and allow the air conditioner to sit for 60 seconds. Turn the air conditioner on again and adjust the idle screw if required.

A/C ALTERNATOR KIT INSTALLATION

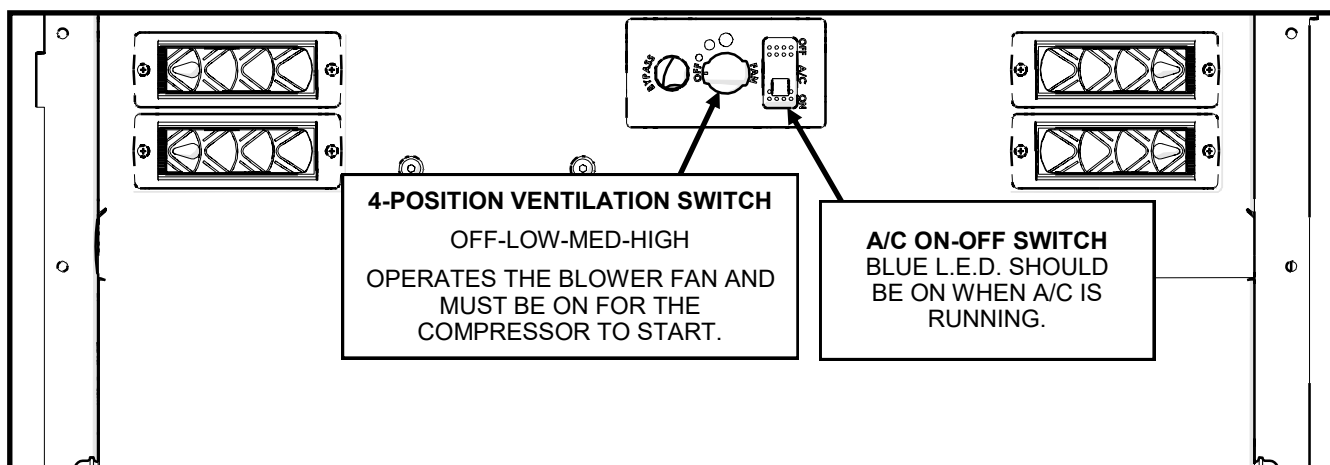
STEP 6: (FINISHING TOUCHES cont'd.)

- 6.8 Verify that the vehicle radiator fan is running whenever the air conditioner is turned on.
- 6.9 Re-install the front cover to the seat base.

Tools

#3 Phillips screwdriver

- 6.10 Re-install the seat base.
- 6.11 Alternator kit is now complete. Continue with the completion of roof kit installation.



CARE AND MAINTENANCE

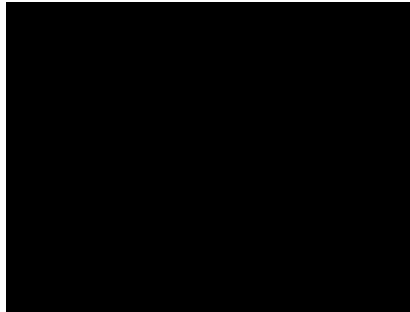
- Readjust the belts after the initial 8-10 hours of use.
- Check and tighten hardware after 20 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's life.

CLUB CAR CARRYALL 1500 / 1700 A/C ALTERNATOR KIT SERVICE PARTS

ALTERNATOR MOUNT, UPPER, ZC
P/N: 8SV-SM-01330-ZC



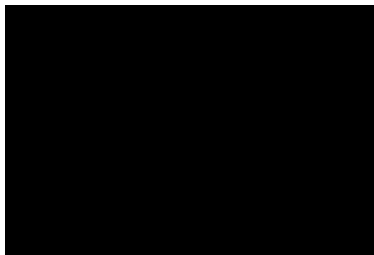
ALTERNATOR ADJ PLATE, ZC
P/N: 8SV-SM-01329-ZC



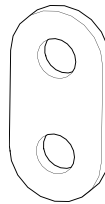
ALTERNATOR MOUNT, LOWER FRONT, ZC
P/N: 8SV-SM-01327-ZC



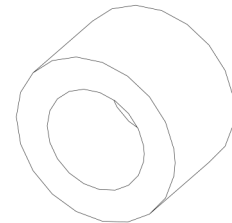
ALTERNATOR MOUNT, LOWER REAR, ZC
P/N: 8SV-WA-00324-ZC



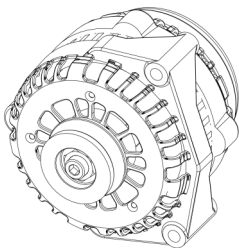
SPACER MOUNTING PLATE, UPPER, ZC
P/N: 8SV-SM-01331-ZC



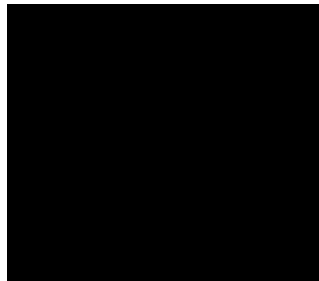
SPACER, 6.15mm X 12.7mm X 9mm LG
(SET OF 2) P/N: 9SV-71-46-0143



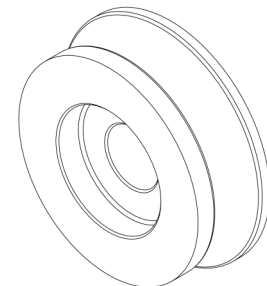
ALTERNATOR, AD244 FRAME W/ 2.33" DIA V-
BELT XL PULLEY: P/N: 8SV-114-00029



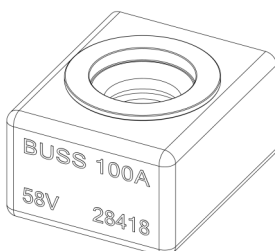
BELT, V-BELT AX35, 37" OUTSIDE
CIRCUMFERENCE; P/N: 9SV-9BLT-10



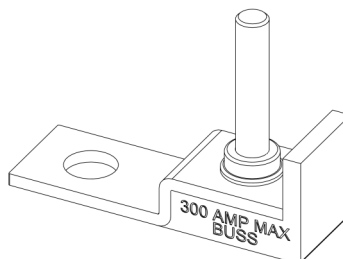
PULLEY, V-BELT XL, 2.33" DIA, 17MM BORE,
STEEL; P/N: 9SV-MP-00032



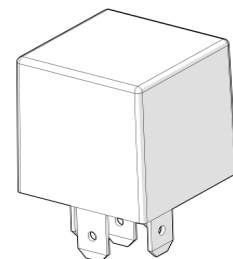
FUSE, 100 AMP, 58 VOLT, MARINE RATED
BATTERY, IP66; P/N: 9SV-85-00-0050



FUSE MOUNTING BAR, 58 VOLT, 1/4" STUD,
3/8" MOUNTING HOLE; P/N: 9SV-85-16-0051

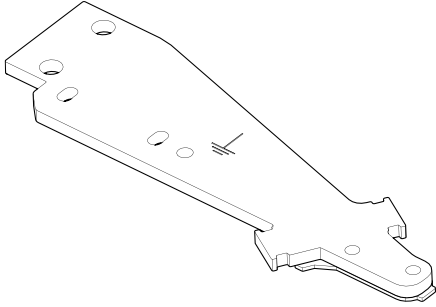


RELAY, 12V, 20/40A, SPDT, MINI ISO
P/N: 9SV-85-01-0022



CLUB CAR CARRYALL 1500 / 1700 A/C ALTERNATOR KIT SERVICE PARTS

SOLENOID MOUNTING PLATE, ZC
P/N: 8SV-WA-00323-ZC



SOLENOID ACTUATOR PLATE W/ 1/4-20
INSERT; P/N: 8SV-113-00188



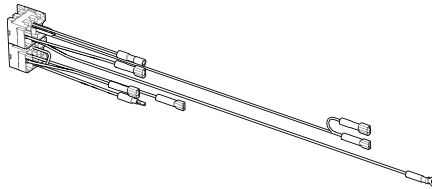
SOLENOID, 12V
P/N: 9SV-85-13-0055



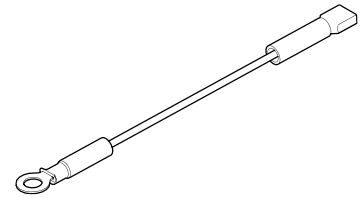
BATTERY HOLD DOWN STRAP
P/N: 8SV-SM-01536



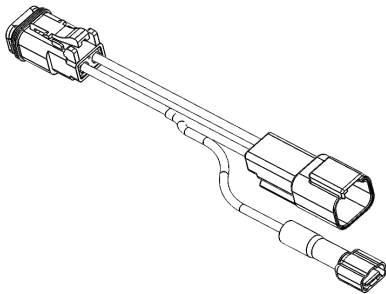
WIRE HARNESS, CONTROLLER, RELAY W/
SOLENOID; P/N: 9SV-WH-00122



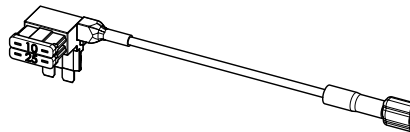
WIRE HARNESS, SOLENOID GROUND
P/N: 9SV-WH-00124



WIRE HARNESS, FAN INTERFACE
P/N: 9SV-WH-00125



WIRE HARNESS, IDLE BUMP SOLENOID
ADAPTER; P/N: 8SV-WH-00158






BOLT TORQUE

BOLT TORQUE SPECIFICATIONS

GENERAL TORQUE SPECIFICATION TABLE

Use the following torques when special torques are not given. These values apply to fasteners as received from suppliers, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads. Remember to always use grade five or better when replacing bolts.

IMPORTANT: On all PLATED GRADE 8 bolts, reduce torque 15% from listed bolt torque specification.

SAE Grade No.		2				5				8*			
Bolt head identification mark as per grade. NOTE: Manufacturing Marks Will Vary													
Bolt Size		TORQUE				TORQUE				TORQUE			
Inches	Millimeters	Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters	
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	6.35	5	6	7	8	9	11	12	15	12	15	16	20
5/16	7.94	10	12	14	16	17	20.5	23	28	24	29	33	39
3/8	9.53	20	23	27	31	35	42	48	57	45	54	61	73
7/16	11.11	30	35	41	47	54	64	73	87	70	84	95	114
1/2	12.70	45	52	61	70	80	96	109	130	110	132	149	179
9/16	14.29	65	75	88	102	110	132	149	179	160	192	217	260
5/8	15.88	95	105	129	142	150	180	203	244	220	264	298	358
3/4	19.05	150	185	203	251	270	324	366	439	380	456	515	618
7/8	22.23	160	200	217	271	400	480	542	651	600	720	814	976
1	25.40	250	300	339	406	580	696	787	944	900	1080	1220	1464
1-1/8	25.58	-	-	-	-	800	880	1085	1193	1280	1440	1736	1953
1-1/4	31.75	-	-	-	-	1120	1240	1519	1681	1820	2000	2468	2712
1-3/8	34.93	-	-	-	-	1460	1680	1980	2278	2380	2720	3227	3688
1-1/2	38.10	-	-	-	-	1940	2200	2631	2983	3160	3560	4285	4827

*Thick Nuts must be used with Grade 8 bolts

METRIC BOLT TORQUE SPECIFICATIONS

5.6

8.8

10.9

Size of Screw	Property Class	Course Thread			Fine Thread		
		Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	5.6	1.0	3.6-5.8	4.9-7.9	-	-	-
	8.8		5.8-9.4	7.9-12.7		-	-
	10.9		7.2-10	9.8-13.6		-	-
M8	5.6	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	8.8		17-22	23-29.8		19-27	25.7-36.6
	10.9		20-26	27.1-35.2		22-31	29.8-42
M10	5.6	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	8.8		34-40	46.1-54.2		35-47	47.4-63.7
	10.9		38-46	51.5-62.3		40-52	54.2-70.5
M12	5.6	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	8.8		51-59	69.1-79.9		55-68	75.9-92.1
	10.9		57-66	77.2-89.4		62-75	84-101.6
M14	5.6	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	8.8		81-93	109.8-126		90-106	122-143.6
	10.9		96-109	130.1-147.7		107-124	145-168
M16	5.6	2.0	67-77	90.8-104.3	1.5	69-83	93.6-112.5
	8.8		116-130	157.2-176.2		120-138	162.6-187
	10.9		129-145	174.8-196.5		140-158	189.7-214.1
M18	5.6	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	8.8		150-168	203.3-227.6		177-199	239.8-269.6
	10.9		175-194	237.1-262.9		202-231	273.7-313
M20	5.6	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	8.8		186-205	252-277.8		206-242	279.1-327.9
	10.9		213-249	288.6-337.4		246-289	333.3-391.6