



BRAMMO

Ariel Atom 2
2006 Model Year
Owner's Manual

Ariel Atom Owner _____

Contact Information _____

Date of Purchase _____

Vehicle PIN _____

Immobilizer Serial No. _____

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BRAMMO MOTORSPORTS, LLC

Brammo Motorsports, LLC is the United States manufacturer of the Ariel Atom 2. Leveraging digital tools at every step of production, Brammo Motorsports has sought to refine manufacturing processes to produce the highest quality parts true to the Ariel Motor Company and Simon Saunder's design. Brammo Motorsports takes great pride in providing high quality components for your vehicle. We are confident that if your vehicle is maintained correctly, you will enjoy many hours of safe and pleasurable driving.



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NON-LIABILITY OF MANUFACTURER

The purchaser of the vehicle assumes full liability for the safe construction and operation of the Ariel Atom 2 whether the vehicle was assembled by the purchaser, a third party garage, or by Brammo Motorsports, LLC.

The Ariel Atom is a high performance vehicle intended for track use. Construction of high performance vehicles involves inherent risks in materials selection, systems design, and vehicle construction. Operation of high performance vehicles involves inherent risks associated with exercising materials, designs, and assemblies at the limits of performance constraints. The operator's individual characteristics and techniques will contribute notably to the performance of the vehicle and the stress placed on designs, materials, and construction.

Ultimately, decisions regarding the safety of the vehicle are made by the owner or operator. By purchasing the vehicle, the owner accepts full responsibility for the safe design, materials selection, construction, and operation of the vehicle and relieves Brammo Motorsports, LLC of any and all liability for any and all injury or death associated with any aspect of the vehicle.

This manual contains the current information at the time of printing. Brammo Motorsports, LLC reserves the right to make changes to the product after the printing of this manual without notice.

The Ariel Atom 2 is intended for off road use only.

USING THIS MANUAL

The *Ariel Atom 2 Owner's Manual* provides you with an overview of the primary components and suggested general maintenance of your vehicle. Each vehicle may be equipped differently, depending on the options you selected when you “built” your Atom. If the manual does not provide needed information about your vehicle, please contact Brammo Motorsports for assistance.

Your Atom is equipped with either a **General Motors (GM) Ecotec LSJ**, or a **Honda K20A Engine**. Information on a page, or in a section, pertaining specifically to either the GM or the Honda engine will be clearly indicated.

IMPORTANT SAFETY INFORMATION

Read this manual before driving your vehicle. Some of the information needs ongoing and close attention and is labeled as follows:

NOTES indicate a unique comment or explanation. They will be written in italics.

WARNINGS & CAUTIONS are in red, and/or are labeled with a (ⓘ) symbol.

SPECIFICATION OVERVIEW

Engine Type:

General Motors: GM Ecotec LSJ

Honda: K20A

Transmission:

General Motors: 5-speed synchromesh with limited slip differential

Honda: 6-speed synchromesh with limited slip differential

Vehicle Capacity: 2 people

Safety Harness Restrictions: Individuals must be over 88 lbs (40 kg) and over 4 ft. 11 in. (150 cm) tall

Curb Weight: 1350 lbs (612.36 kg)

Body: Fiberglass composite, or carbon fiber composite

Suspension Type: Multilink Independent with pushrod actuation

Wheel Size: Front: 15 x 7.0 in. + 35 mm offset, Rear: 16 x 7.0 in. + 38 mm offset

Tire Pressure: (recommended) 18 PSIG Front, 20 PSIG Rear

Fuel Type/Capacity: Premium fuel, 9.7 gallons (36.7 liters)

VEHICLE LAYOUT



DASH LAYOUT

1. Tachometer
2. Immobilizer
3. Charge System Warning
4. Parking Brake Indicator
5. Left Turn Signal
6. High Beam Indicator Light
7. Right Turn Signal
8. Lighting Indicator
9. Oil Pressure Warning
10. Speedometer
11. Turn Signal Switch
12. Horn
13. Engine Start Button
14. Ignition Power Switch
15. Emergency Flashers Button
16. Fog/Rain/Light
17. Marker/Lighting Selector/High Beams
18. LCD Panel
19. Dash Programming Button



The LCD panel includes readings for the total mileage, the trip odometer, the water temperature and the fuel gauge. The fuel gauge will flash when the tank is approaching empty. The panel settings are pre-programmed. If you wish to modify the default settings, please contact Brammo Motorsports for programming instructions.

NOTE: If your vehicle is equipped with non-canceling turn signals, they must be cancelled manually.

SAFETY HARNESSSES



Your vehicle is equipped with a SCHROTH safety harness system. Your harness must be worn, adjusted and maintained properly. Demonstrations and instructions regarding the effective and safe use of your racing harnesses are included in the SCHROTH on-line user manual, which you will find on the CD in your Ariel Atom Owner's Packet. Reading and adhering to the information in the SCHROTH on-line user manual is imperative for the safety of drivers and passengers of your vehicle. Information on the CD includes but is not limited to:

- Wearing, adjusting and releasing the racing harness
- Anchorage locations and geometries
- Belt routing
- Overview of the Anti Submarining Mechanism (ASM®)
- Care and maintenance of the harnesses
- Replacement information (Harnesses must be replaced before the expiration date listed on the label.)

To access the on-line user manual:

1. Insert the CD into your disk drive
2. Open the SCHROTH CD Rom folder
3. Open the folder titled "English"
4. Open the HTML document titled "main.htm"
5. Click on "Installation and Instructions"
6. Open each folder in the left column for instructions and information

WARNING: SCHROTH racing harnesses are designed for individuals weighing more than 88 lbs (40 kg), and with a height greater than 4 ft. 11 in. (150 cm).



2" Standard 4-point Belts

- 4-point harness
- Anti Submarining technology sewn into shoulder belts
- Push button release and easy use "pull-up" adjusters



3" Shoulder Belt & 3" Lap Belt

- 6-point Schroth Competition harness
- FIA and SCCA approved
- Anti Submarining belts included

ON-BOARD EXTINGUISHER SYSTEM



- If you have chosen the on-board extinguisher system, the fire extinguisher bottle is located under the dash, at the longitudinal midline of the car, and is placed horizontally and perpendicular to the long axis, above the parking brake pull mechanism.
- There are two pull handles for the extinguisher. The safety crew handle is located on the windscreen base at the right side of the car ahead of the mirror base. The driver's handle is between the instrument panel and the parking brake handle.
- The pull handles are marked **"FIRE"** and include a safety pin with a blue flag attached.
- Before driving your vehicle, check the gauge on your extinguisher to ensure that it is fully charged.
- Please refer to the *Safecraft Installation Suggestions and Hints* documents included in your Ariel Atom Owner's Packet.



Driver's extinguisher pull handle



Safety crew's extinguisher pull handle

START SEQUENCE



Flip Ignition Toggle Switch "Up"

Hold Key Fob near RF Antennae Ring

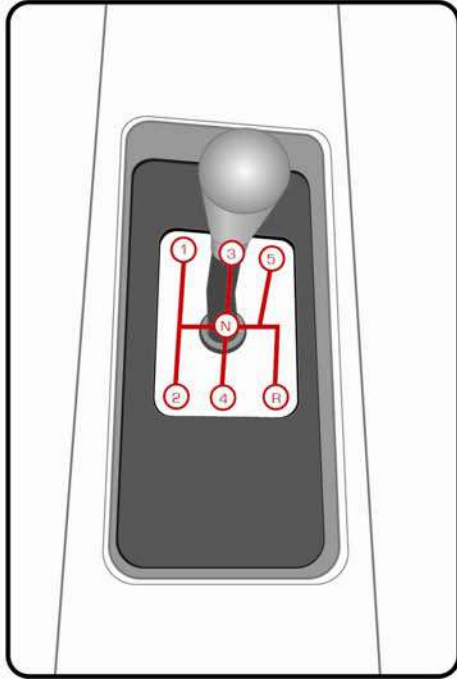
Press Starter Button to Fire Engine.

The Remote Keyless Immobilizer

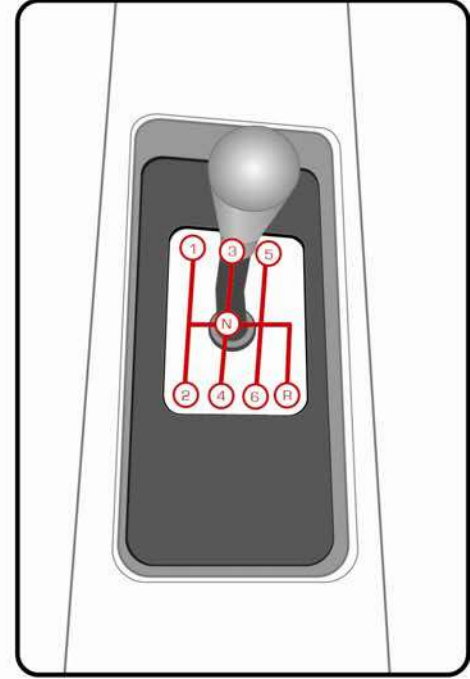
- When the immobilizer indicator light is flashing moderately, the anti-theft system is armed. The flashing light will blink rapidly when the ignition is on (the system will still be armed).
- To unarm the system, wave the key fob in range of the transponder antennae (#2 in diagram). The light will go off, and the car is then able to start.
- After you kill the ignition switch the light will stay on solid for 20 seconds.
- If the starter switch is not pushed within 20 seconds, the system will re-arm, and the sequence will need to be repeated.

SHIFT PATTERNS

General Motors Ecotec 2.0 SC - Shift Pattern



Honda K20A (NA and SC) - Shift Pattern



VEHICLE RUN-IN PROCEDURES

Your vehicle does not need an elaborate break-in; however, it will perform better in the long run if you follow these guidelines:

- Do not drive at any one constant speed, fast or slow, for the first 500 miles (800 km).
- Do not make full-throttle starts.
- Do not exceed 5,000 engine RPM.
- Avoid downshifting to brake or slow the vehicle.



BRAKE BEDDING PROCEDURES



Your Ariel Atom 2 will be delivered with set-up, testing, and checks already completed by the factory; however, the braking system will still need to be completely bedded-in before any high speed or very hard deceleration is attempted. Refer to the following schedule for brake bed-in procedures.

The first 10 miles (16 km): Light braking from 50–60 MPH (80-96 km/h) down to 30 MPH (48 km/h). Perform this protocol for five iterations allowing time for the brakes to cool between iterations. Avoid any high speed stops down to zero. Braking from high speeds heats the disc surface while the interior remains cool and contributes to warping before the brakes are fully bedded.

The first 10-100 miles (16-160 km): Increase braking pressure from about 60 MPH (96 km/h) to zero. Observe for the area around the mounting bolts to turn light blue. This coloration indicates correct heat soak is being achieved. Avoid full stops from 70 plus MPH (112 km/h).

The first 100-200 miles (160-322 km): Gradually increase brake pressure coming to full stops more rapidly than during the previous step. After this point, full braking from speed should be possible without warping the discs or experiencing unusual vibration.

For track day use:

- Warm, but do not overheat, the brakes during the warm up lap(s).
- Allow the brakes to cool during a “cool down” lap at the end of the session.
- Do not leave your foot on the brake after stopping in the paddock area following braking from high speeds. This action would create a “hot spot” and contribute to warping the rotors.

NOTE: To avoid warping, avoid excessive or uneven heating of the rotors.

JACK POINTS

At the front of the vehicle, the mounting point where the front of the lower A-arm attaches to the frame is the preferred jacking point. At the rear of the vehicle, the lower horizontal tube is the preferred jacking point.



Front Jacking Points



Rear Jacking Points

JACKING UP THE CAR

- The use of wheel chocks or blocks is required when jacking up the car.
- Jack stand locations are suitable for full lift and single end elevated requirements.
- Use care to not damage the radiator or after cooler radiator when positioning jack.
- Use rags or cardboard between the jack and the frame, as well as between the jack stands and frame, to avoid scratching the frame's finish.

Procedures:

1. Position the floor jack directly under the front lower A-arm bushing bracket.
2. Locate the jack stands on right and left sides of car directly under the longitudinal tube of lower chassis.
3. Locate one of the jack stands directly under the rear bottom cross member as far to the left side as possible.
4. Position the floor jack directly under the rear bottom cross member at the centerline of car.
5. Locate one of the jack stands directly under the rear bottom cross member as far to the right side as possible.



Never get under your vehicle when it is only supported by a jack.

TIE DOWN POINTS FOR TRANSPORTING YOUR ARIEL ATOM

Recommended
Front Chassis Tie-Down Location



Straps Routed
Under Front Suspension
Push-Rod and Over
Lower A-Arm

Recommended
Rear Chassis
Tie-Down Location



BRAKE PACKAGES

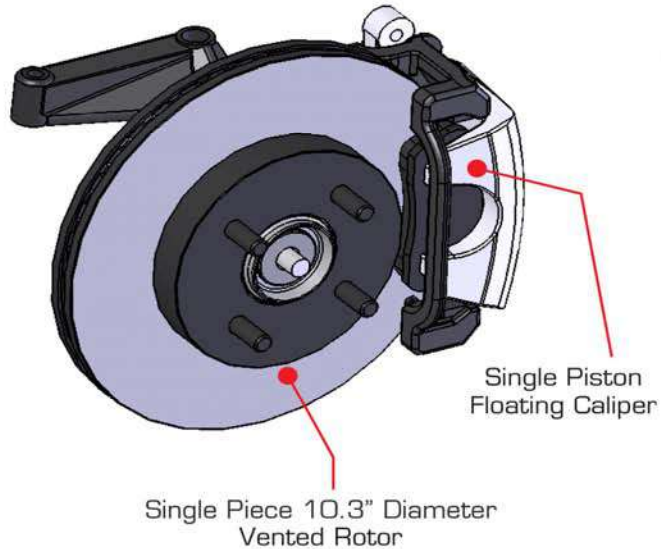
Your Atom is equipped with one of the following brake packages:

- Base*** Floating calipers front & rear with 10.3 in. front ventilated rotor and 10.3 in. rear ventilated rotor.
- Sport*** Wilwood Dynalite 4 piston caliper front and floating PBR caliper rear, with 10.3 in. front ventilated rotor and 10.3 in. rear ventilated rotor.
- Track*** Wilwood Dynalite 4 piston caliper front & rear caliper and parking brake caliper with 11 in. front two-piece ventilated rotor and 11 in. two-piece ventilated rotor.
- Race*** Alcon 4 piston caliper front & rear with 11 in. front two-piece slotted & ventilated rotor, and 11 in. rear two-piece slotted & ventilated rotor.

- ⚠ Brake pads should be inspected before every track event to ensure that there has been no pad damage, thickness issues, or deterioration.
- ⚠ The brake rotors should be replaced when their thickness decreases to 19mm, when pulsation is noted, or if cracking or other physical damage is found during inspection. Additionally, the brake pads should be replaced when replacing the rotors.
- ⚠ Check brake fluid levels often. Some decrease is to be expected as the pads wear. Additionally, the brake lines should be checked for rubbing or scraping.

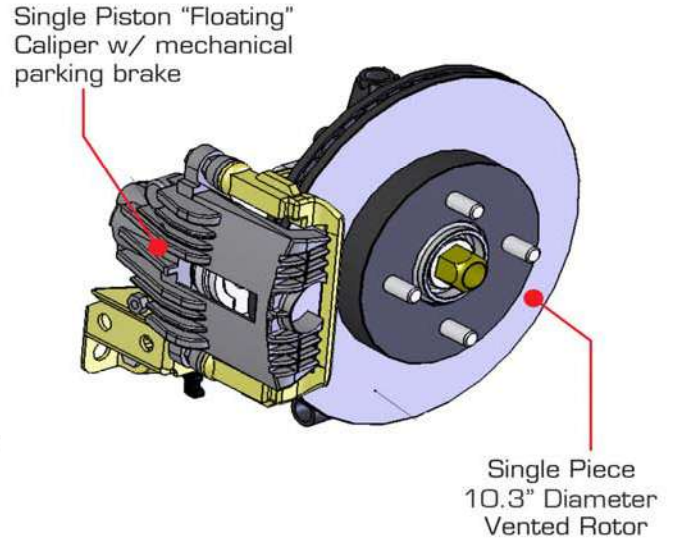
BASE Brake Package:

FRONT



Pads Front: Brammo PN: AA-BK-015
Wilwood PN: 15Q-6824K

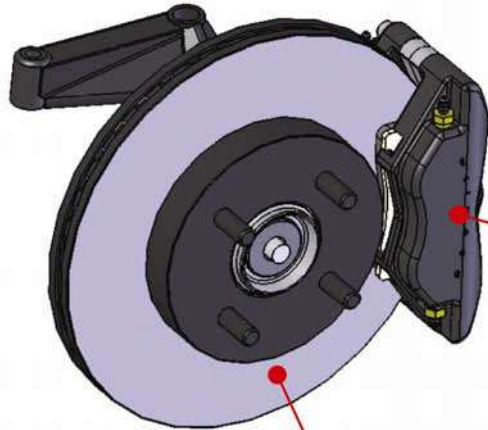
REAR



Pads Rear: Brammo PN: AA-BK-055
NAPA PN: SS-7301-M

SPORT Brake Package:

FRONT



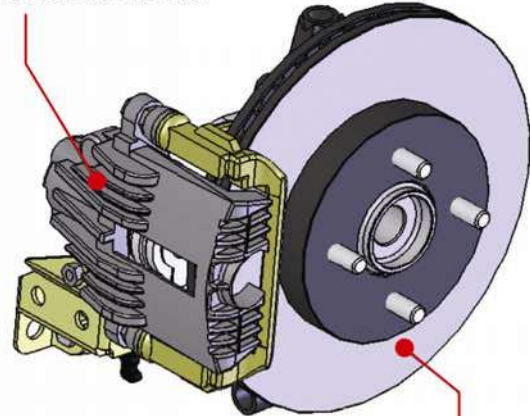
Single Piece 10.3" Diameter
Vented Rotor

Wilwood "Dynalite"
4 Piston Caliper

Pads Front: Brammo PN: AA-BK-015
Wilwood PN: 15Q-6824K

REAR

Single Piston "Floating" Caliper
+ Mechanical E-brake

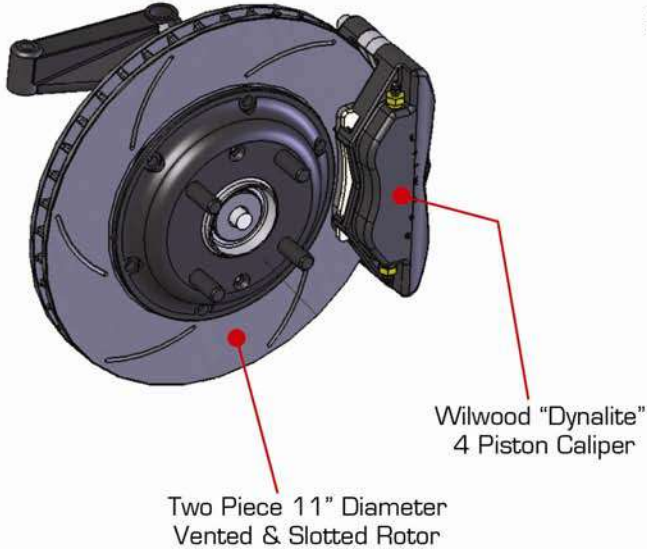


Single Piece 10.3" Diameter
Vented Rotor

Pads Rear: Brammo PN: AA-BK-055
Napa Auto PN: SS-7301-M

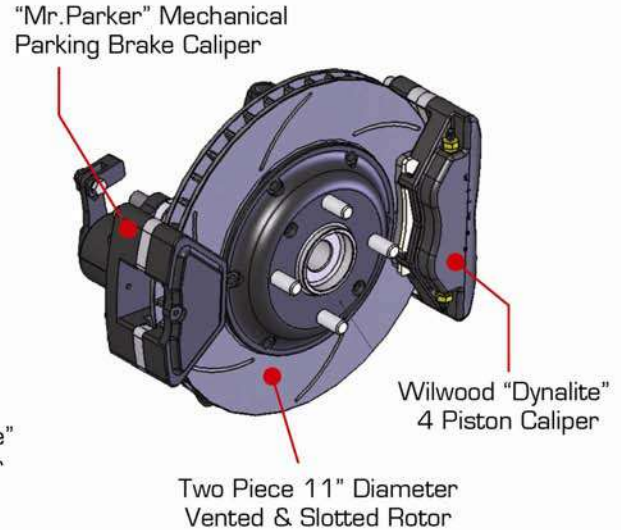
TRACK Brake Package:

FRONT



Pads Front: Brammo PN: AA-BK-056
Wilwood PN: 150-9413K

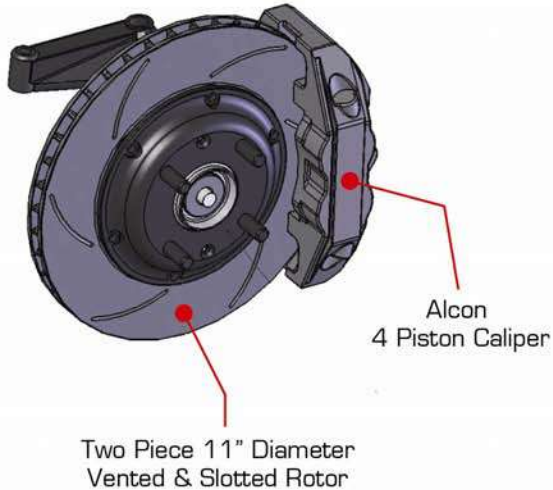
REAR



Pads Rear: Brammo PN: AA-BK-056
Wilwood PN: 150-9413K
P-Brake Pads: Brammo PN: AA-BK-035
Wilwood PN: 150-8937K

RACE Brake Package:

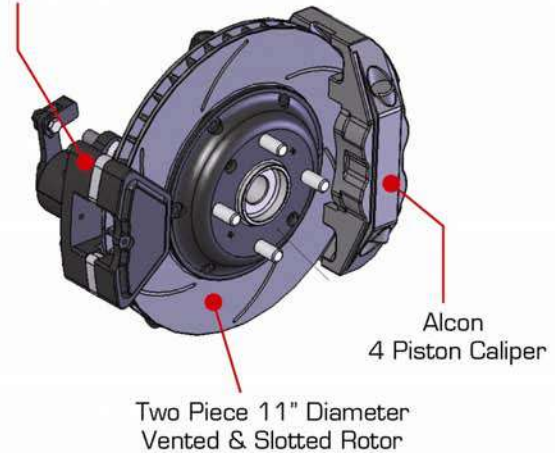
FRONT



Pads Front: Brammo PN: AA-BK-033
Alcon PN: PNP4436X502.4

REAR

"Mr.Parker" Mechanical
Parking Brake Caliper



Pads Rear: Brammo PN: AA-BK-033
Alcon PN: PNP4436X502.4
P-Brake Pads: Brammo PN: AA-BK-035
Wilwood PN: 150-8937K

PARKING BRAKE ADJUSTMENT



There are two adjustment points on your vehicle's parking brake assembly, the parking brake actuator and the cable slack. Refer to the photos on the following page. To adjust the assembly:

1. Place chocks or blocks in front and in back of the front wheels to prevent the car from rolling.
2. Place the parking brake handle in the forward-most position and put the car in neutral.
3. Jack up the rear of your Atom until the rear wheels are clear of the ground.
4. Place safety stands under the car.
5. Ensure that the car is stable.
6. Make sure that there is a little slack in the cables where they exit their covers at the rear of the car near the rear axle.
7. Take a 1/4 in. Allen wrench and turn the internal hex bolt in the center of the large end of the parking brake application lever clockwise until the wheel cannot be turned by hand. (Track & Race package.)
8. Turn the Allen bolt counter-clockwise about 1/16 of a turn. At this point the parking brake is initialized and the cables can be adjusted.
9. Loosen the locknut on the cable housings with a 9/16 in. wrench and screw the adjuster barrel counter-clockwise until there is less than 1/2 in. of vertical slack in the cable.
10. Tighten the locknut while holding the cable housing stable with a 1/2 in. wrench.

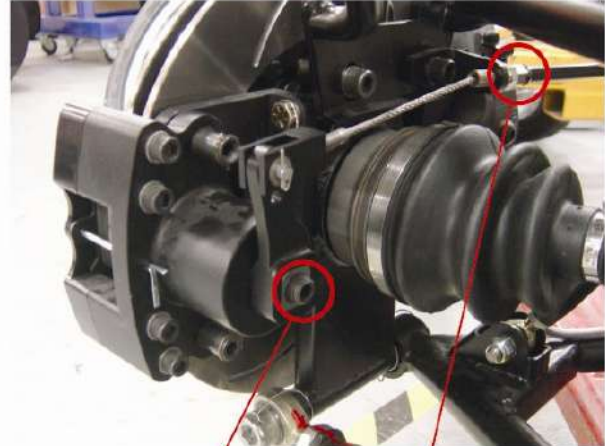
"Standard" and "Sport" Brake Package



Parking Brake
Cable adjustment
sleeve

NO Pad adjustment
required on Standard
or Sport Packages.

"Track" and "Race" Brake Package



Parking Brake Pad
adjustment screw

Parking Brake
Cable adjustment
sleeve

TIRE & WHEEL MAINTENANCE

NOTE: *Due to a wide range of driving conditions and techniques, tire maintenance will vary.*

- Ariel Atoms are equipped with ultra high performance, wet/dry (not all-season) tires. Tire sizes are:
Front 195/50R/15 or 205/50R15 **Rear** 225/45R16 or 225/45R16
 - Front tire pressures of 18 PSI, and rear tire pressures of 20 PSI are the recommended tire pressures for most applications. Minimum and maximum tire pressures are listed on the sidewall of the tires.
 - Drivers should inspect tires for proper pressure and tread wear before every track event. A wide range of wear patterns are possible due to different driving conditions.
 - If you are losing traction it may be time to change the tires.
 - Suspension settings may affect tire wear patterns.
 - Grainy tread may indicate a suspension issue.
 - Tires may last up to 20,000 miles (32,000 km) under conservative driving conditions or as little as 300 miles (480 km) for track conditions.
- ⚠ The wheels should be re-torqued before every track event. The lug nut torque is 80 ft-lbs.
- ⚠ Most Atoms have different size tires on the front and the back, and cannot be rotated. If you car's tires are the same size, rotate them every 500-1,000 miles (800-1600 km). Dismount the tires from the wheels before rotating them.

WHEELS



**Team Dynamic
Pro Race 1.2**
12-Spoke
15 x 7 +35mm offset
16 x 7 +38mm offset
Wheel nut type: M12 x 1.5mm
Lug nut torque: 80 ft-lbs



**Team Dynamic
Pro Race 2.0**
5-Spoke "webbed ends"
15 x 7 +35mm offset
16 x 7 +38mm offset
Wheel nut type: M12 x 1.5mm
Lug nut torque: 80 ft-lbs



Dymag
5-Spoke Magnesium
15 x 7 +35mm offset
16 x 8 +38mm offset
Wheel nut type: M12 x 1.5mm
Lug nut torque: 80 ft-lbs

GM DRIVETRAINS

GM Ecotec 2.2 Liter Naturally Aspirated

DOHC with Sequential Fuel Injection
Bore: 86.00mm
Stroke: 94.60 mm with 10:1 compression ratio
140 Horsepower and 150 ft-lbs of torque

GM Ecotec 2.0 Liter Base

DOHC with Sequential Fuel Injection
Bore: 86.00 mm
Stroke: 86.00 mm with 9.5:1 compression ratio
205 Horsepower and 200 ft-lbs of torque

GM Ecotec 2.0 Liter Stage 1

DOHC with Sequential Fuel Injection
Bore: 86.00 mm
Stroke: 86.00 mm with 9.5:1 compression ratio
230 Horsepower and 205 ft-lbs of torque

GM Ecotec 2.0 Liter Stage 2

DOHC with Sequential Fuel Injection
Bore: 86.00 mm
Stroke: 86.00 mm with 9.5:1 compression ratio
245 Horsepower and 215 ft-lbs of torque

GM Ecotec 2.0 Liter Stage 3

DOHC with Sequential Fuel Injection
Bore: 86.00 mm
Stroke: 86.00 mm with 9.5:1 compression ratio
300 Horsepower and 250 ft-lbs of torque

GM DRIVETRAINS

The Ecotec 2.0L SC (Supercharged) is compact and lightweight, and its Eaton M62 Supercharger adds 40 percent more power to the Ecotec 2.0L engine compared to a naturally aspirated version. The M62 supercharger utilizes a helical roots compressor and integral pressure control, producing a maximum of 12-19 PSI of boost. The boosted intake flow exits into an all-new matched intake manifold with an integral air-to-liquid heat exchange intake charge cooler system. A compact single-track, six-rib belt supercharger drive system utilizes a linear tensioning device to further strengthen the already impressive system performance and durability. A microprocessor manages the M62 supercharger, fuel, direct spark delivery systems and the engine's 68-mm Electronic Throttle Control (ETC) system. ETC delivers outstanding throttle response, improved reliability and better integration with cruise control electronics for greater overall performance and drivability.

The Ecotec 2.0L SC engine is built with a six-quart oil sump and a crankshaft driven pump. A block-mounted oil cooler, or optional remote cooler, is included to ensure proper lubricant cooling that promotes long engine life.

The 2.0L SC engine is built exclusively at the FGP (Fiat-GM Powertrain) engine facility in Kaiserslautern, Germany. This plant uses a die-cast production technique that yields a block that is well suited for high-stress applications including turbocharging and supercharging.

Often referred to as the Global Four Cylinder, the starting point for the 2.0L SC is the Ecotec 2.2L (RPO L61). This engine has leveraged GM Powertrain's worldwide design and engineering capability by drawing on the best practice of technical centers in North America and Europe. The Ecotec 2.2L created a template for subsequent global powertrain development that laid the groundwork for engines such as Powertrain's new Global 3.6: V6. Most important, the Ecotec 2.2L is a world-class gasoline engine with obvious benefits for the

customer. At 307 pounds fully dressed, the L61 is the lightest engine GM has produced in its displacement class, and one of the most compact four-cylinders in the world.

Before going into production, every Ecotec engine variant is subjected to the toughest and most comprehensive validation process ever carried out at GM, having to pass all of the dynamometer and vehicle tests traditionally run by various GM organizations worldwide, including the most severe trials. Coinciding with the rollout of the Ecotec program, general engine durability testing on lab dynamometers was increased by 60 percent. This has been carried forward to the new Ecotec supercharged engine.

**The preceding specifications and text regarding the GM drivetrain have been adapted and copied with permission from the General Motors Corporation.*



HONDA DRIVETRAINS

Honda Non-Supercharged

DOHC with Sequential Fuel Injection
Bore: 86.00 mm
Stroke: 86.00 mm with 11.5:1 compression ratio
245 horsepower 163 ft-lbs of torque

Honda Supercharged

DOHC with Sequential Fuel Injection
Bore: 86:00 mm
Stroke: 86.00 mm with 11.5:1 compression ratio
300 horsepower 198 ft-lbs of torque



ENGINE MOUNT SPECIFICATIONS

GM engine mount torque

Front & rear: M12 x 1.75

40 ft-lbs

Right side: M12 x 1.75

40 ft-lbs

Honda engine mount torque

Front & rear: 12 x 1.25mm

47 ft-lbs

Right side: 10 x 1.25mm

33 ft-lbs

Note: Engine bolts, for both engine types, are coated with blue “thread lock” at the factory.

ELECTRICAL SPECIFICATIONS

Spark Plugs in GM Engines

Gap: 0.045 in. (1.14mm)

Recommended torque: 15 ft-lbs (20 Nm)

Service: Inspect before every track event and change if necessary.

Type: LTR5GP NGK PK16PR-P11 ND

LTR51X-11 NGK

PT16VR13 ND

(or equivalent)

Spark Plugs in Honda Engines

Gap: 0.039 – 0.043 in. (1.0 – 1.1mm)

Recommended torque: 15 ft-lbs (20 Nm)

Service: Inspect before every track event and change if necessary.

Type: NGK: 1FR7G11K, 1FR7G11KS

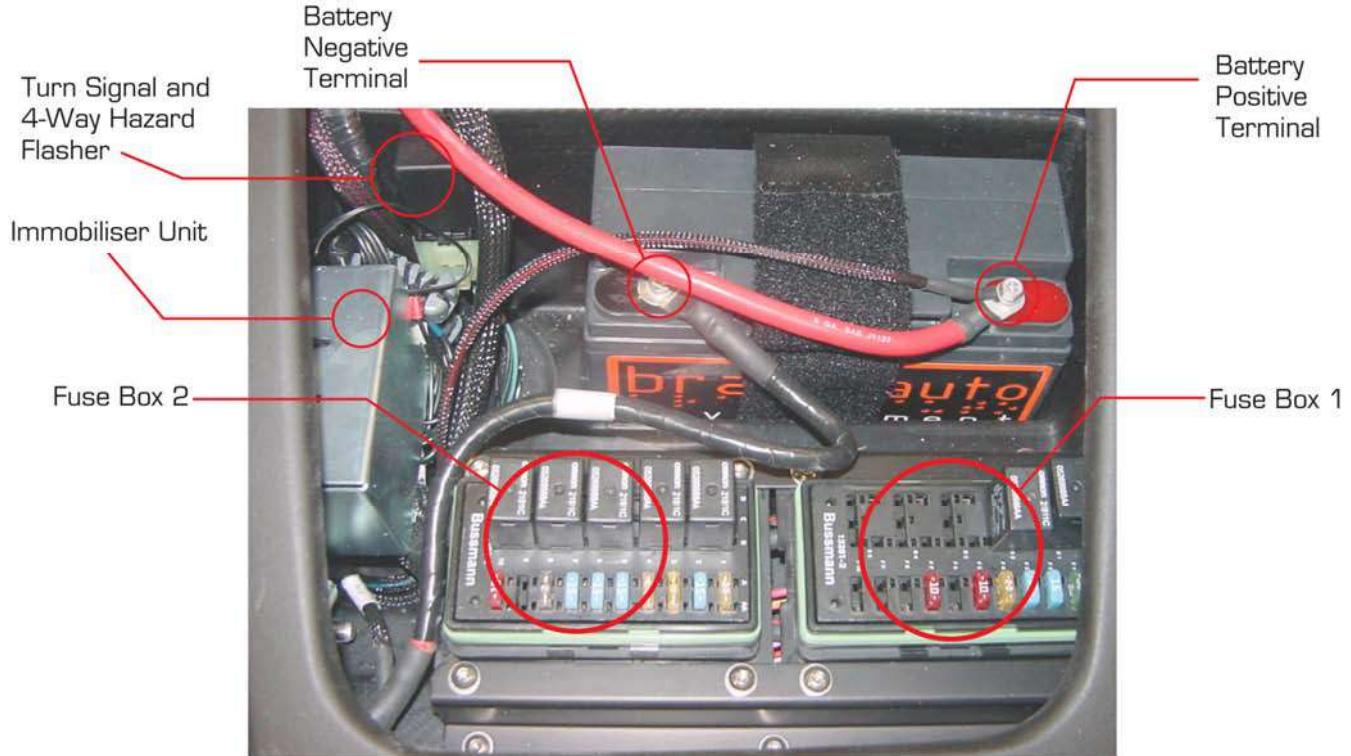
DENSO: SK22PR-M11, SK22PR-M11S

Ignition Timing and Battery (both engines)

Set by the processor and/or the ECU. Not adjustable.

FUSES

Fuse box locations



GM FUSE PANELS (Without Master Battery Switch)

Fuse Box 1				Fuse Box 2			
Relays	Fuse #	Rating	Description	Relays	Fuse #	Rating	Description
R1 After Cool	F1	30A	Battery	R1 Starter	F1	20A	Ignition
	F2	15A	Brake Light		F2	15A	Fuel Pump
R2 Power Train	F3	15A	Light Switch	R2 Cooling Fan	F3	20A	High Beam
	F4	20A	Power Point		F4	20A	Low Beam
R3	F5	10A	ALDL	R3 High Beam	F5		No Fuse
	F6	10A	ECM Battery		F6	15A	Power Train
R4	F7	10A	Hazard	R4 Low Beam	F7	15A	BU Lamp Switch & Master Lube
	F8	15A	Horn		F8	2A	Dash
R5	F9			R5 Fuel Pump	F9	15A	Run Lights
	F10				F10	15A	Turn Signal

GM FUSE PANELS (With Master Battery Switch)

Fuse Box 1				Fuse Box 2			
Relays	Fuse #	Rating	Description	Relays	Fuse #	Rating	Description
R1 After Cool	F1	30A	Battery	R1 Starter	F1	20A	Ignition
	F2	15A	Brake Light		F2	15A	Fuel Pump
R2 Power Train	F3	15A	Light Switch	R2 Cooling Fan	F3	20A	High Beam
	F4	20A	Power Point		F4	20A	Low Beam
R3	F5	10A	ALDL	R3 High Beam	F5	10A	ECU Battery
	F6		No Fuse		F6	15A	Power Train
R4	F7	10A	Hazard	R4 Low Beam	F7	15A	BU Lamp Switch & Master Lube
	F8	15A	Horn		F8	20A	Dash
R5	F9			R5 Fuel Pump	F9	15A	Run Lights
	F10				F10	15A	Turn Signal

HONDA FUSE PANELS

Fuse Box 1				Fuse Box 2			
Relays	Fuse #	Rating	Description	Relays	Fuse #	Rating	Description
R1 After Cool	F1	30A	Battery	R1 Starter	F1	20A	Ignition
	F2	15A	Brake Light		F2	15A	Fuel Pump
R2 Power Train	F3	15A	Light Switch	R2 Cooling Fan	F3	20A	High Beam
	F4	20A	Power Point		F4	20A	Low Beam
R3 Cooling Fan	F5	10A	ALDL	R3 High Beam	F5	No Fuse	ECM
	F6	10A	ECM Battery+		F6	15A	Power Train
R4 Main Relay	F7	10A	Hazard	R4 Low Beam	F7	15A	BU Lamp Switch
	F8	15A	Horn		F8	2A	Dash
R5	F9			R5 Fuel Pump	F9	15A	Running Lights
	F10				F10	15A	Turn Signal

FLUID LEVELS & TYPES FOR ATOMS WITH GM ENGINES

Fluid levels (GM engines)

- Engine oil capacity:** 6 quarts (5.20 L)
- Transmission oil capacity:** 67 ounces / 2.1 quarts (189 grams/1.99 L)
- Brake fluid reservoir capacity:** Fill to the indicated capacity line on the reservoir
- Fuel tank capacity:** 9.7 gallons (36.7 L)
- Cooling system capacity:** 2.75 gallons (10.395 L)
- Supercharger after cooler coolant:** 2 in. (apx.) below the filler cap when hot
- Front lower A-arm ball joint grease:** As needed

Fluid types (GM engines)

- Engine oil:** Mobil 1™ Synthetic 5-30
- Transmission oil:** Saturn Manual Transmission Lubricant
(The use of standard GL-4 lubricant is not recommended.)
- Brake fluid:** Dot 4
- Clutch fluid:** Dot 4
- Fuel:** Premium Unleaded
- Cooling system:** Dexcool (Dilute with water 50:50 if not pre-diluted)
- Supercharger after cooler coolant:** Dexcool
- Front lower A-arm ball joint grease:** High quality bearing/suspension grease

FLUID LEVELS & TYPES FOR ATOMS WITH HONDA ENGINES

Fluid levels (Honda engines)

- Engine oil capacity:** 5.5 quarts (5.20 L)
- Transmission oil capacity:** 64 oz/2.1 quarts (189 grams/1.99 L)
- Brake fluid reservoir capacity:** Fill to the indicated capacity line on the reservoir
- Fuel tank capacity:** 9.7 gallons (36.7 L)
- Cooling system capacity:** 2.75 gallons (10.395 L)
- Front lower A-arm ball joint grease:** As needed

Fluid types (Honda engines)

- Engine oil:** 5-30 Conventional oil
- Transmission oil:** Honda/Acura Manual Transmission Fluid
- Brake fluid:** Dot 4
- Clutch fluid:** Dot 4
- Fuel:** Premium Unleaded
- Cooling system:** Acura/Honda Anti Freeze Coolant Type 2 (only available premixed)
- Front lower A-arm ball joint grease:** High quality bearing/suspension grease

GM ENGINE OIL DIPSTICK/FILL LOCATIONS

For Atoms with GM engines, the dipstick is located just forward of the right rear wheel.



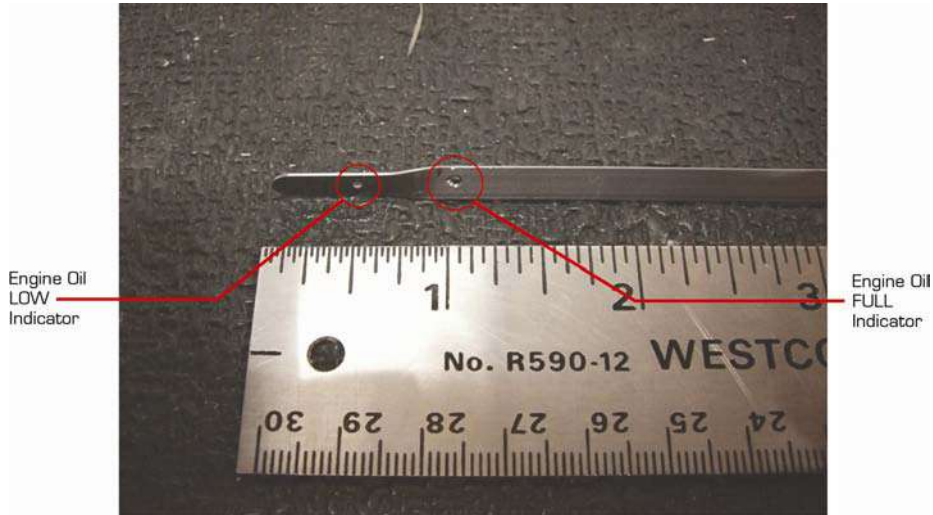
HONDA ENGINE OIL FILL LOCATIONS

For Atoms with Honda engines, it may be necessary to unbolt the coolant reservoir to access the oil filler.



DIP STICK INDICATOR FOR HONDA ENGINES

Due to the Honda engine's tilted positioning, the dip stick for the oil tank was modified. There are customized holes drilled in the dip stick at 1/2 in. (12.7 mm) and at 1 in. (25.4 mm) for your point of reference.



ADDING & CHANGING ENGINE COOLANT



The engine coolant tank is located above the engine in the center of the engine compartment, under the air intake cover.

WARNING: the system is pressurized at up to 15 PSI, and can cause severe burns! Only open the cap when the engine is at ambient temperature and there is no pressure in the cooling hoses.

At the factory we use a vacuum device to pull the coolant through the system, then a coolant pressurizing system to apply 15 PSI to it. By the time this is done, there are virtually no air bubbles left in the system. You will have to bleed the system very carefully using the following procedures:

1. Refer to the Fluid Levels & Types section on pages 35 & 36 for your engine's specifications. Dilute coolant 50:50 coolant to water if the product comes un-diluted.
2. Carefully remove the 1/8 in. bronze pipe plug located at the top of the radiator. **NOTE:** *if coolant rushes out of this fitting, the engine may not need bleeding.*
3. Fill the coolant exchange tank over the engine until it will not hold any more coolant.
4. Start the engine and let it idle until the temperature at the thermostat housing reaches about 150 degrees.
5. Check the radiator by touch to ensure it is warm. If it is not warm, turn engine off and let set. Restart.
6. Shut down the engine.

NOTE: *The coolant temperature indicator on the SPA dash is not reliable until the system is completely bled, so do not depend on it for accurate readings yet.*

ADDING & CHANGING ENGINE COOLANT CONTINUED

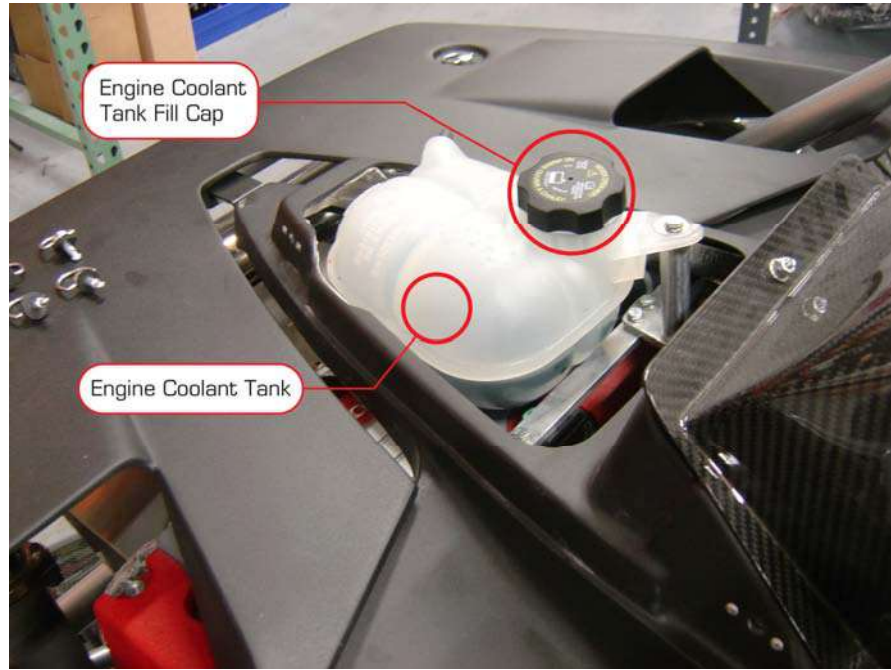
7. Once the engine has been shut down, squeeze the coolant hose above the transaxle repeatedly for a while and watch for air bubbles to enter the coolant exchange tank.
8. Add more coolant as you are able to coax air bubbles out of the coolant hose.
9. Repeat this startup / shutdown procedure as many times as necessary until the bubbles cease, and the upper hose is hot to the touch.

At some point in this process, the engine will “burp”, and the coolant gauge will begin to read properly. When you are certain that this has occurred:

10. Release the pressure **VERY SLOWLY** at the tank.
11. Fill the tank again to the center seam level.
12. Check the copper air bleed fitting at the radiator to be sure the radiator is full.
13. Tighten everything up.
14. Run the engine until the fan turns on, off, then on again.
15. Switch off engine and allow it to cool completely.
16. Fill the tank to its proper level for the last time.

For vehicles with GM engines, the aftercooler fill location is accessed by moving the seats to their forward most position. In the center of the engine bulkhead is a triangular cover secured by Philips head screws. Removing these screws reveals a semi-transparent port with a threaded cap.

NOTE: *Honda engines do not require an aftercooler coolant.*



Engine Coolant
Tank Fill Cap

Engine Coolant Tank

TRANSMISSION OIL

GM Engines

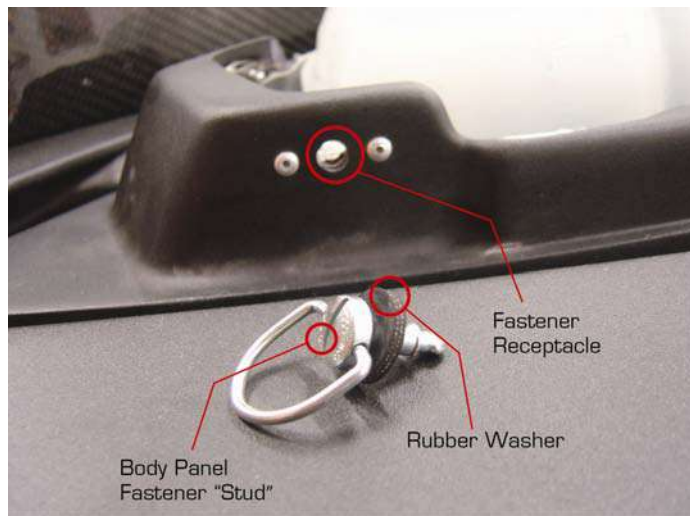
The transaxle fill/level indicator plug for the GM engine is on the left side of the car, just behind the axle. Due to the angle of the engine/transaxle assembly, the proper fluid level of the transaxle is about 1 in. (25.4 mm) below the level indicator plug. The drain fitting is identical to the fill plug and is located below the left axle. Both plugs require the use of an 8mm hex wrench to remove or install.

Honda Engines

The transaxle fill/level indicator plug for the Honda engine is on the left side of the car, just behind the axle. Due to the angle of the engine/transaxle assembly, the proper fluid level of the transaxle is approximately 1 in. (25.4 mm) below the level indicator plug. The drain plug is located below the left axle. Use a 17mm wrench to remove the fill plug, and use a 3/8 in. square drive to remove the drain plug.

BODY PANEL REMOVAL & INSTALLATION

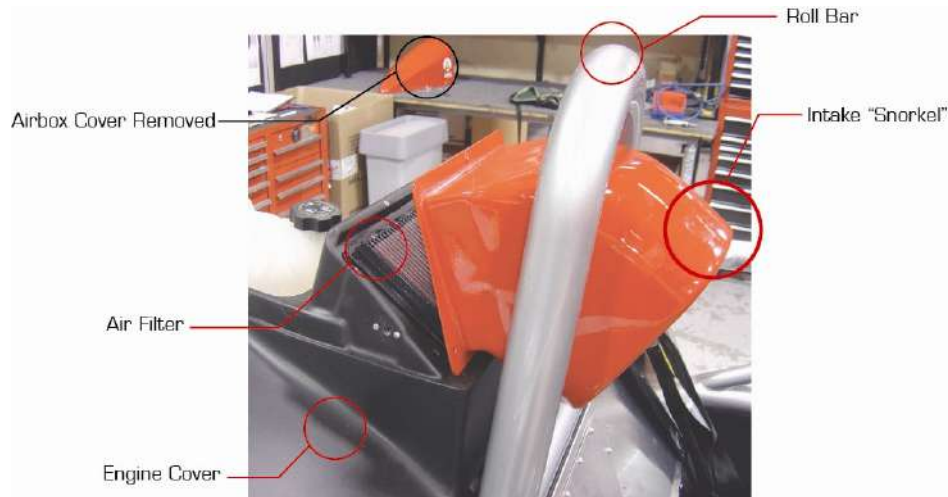
The rear wing, snorkel cover, and bonnet are all retained with quick-release fasteners. The fasteners are the same size and grip length, and there may or may not be rubber washers under them. Use of washers is dependent on best fit, so be sure that the same fasteners and washers are reinstalled in the same location. To release the fasteners, pull the handle out and rotate the fastener one quarter turn counter-clockwise, then pull out gently. Some of the washers come with a retainer and some do not. For washers that are not retained, be sure to collect the washers as they are released from the fasteners. To reinstall fasteners that are not retained, insert the fastener into the hole, and then turn clockwise until it engages. At this point, turn the fastener an additional one quarter turn to seat it and fold the handle down flush with the body. The bonnet is retained by three fasteners, one of which is hidden on the lower surface at the front of the vehicle.



AIR FILTER REMOVAL & INSTALLATION

For vehicles with Honda engines, or GM engines with corrugated intakes, follow these directions:

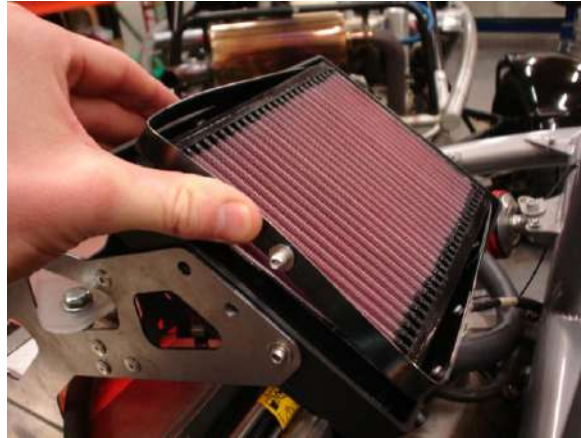
To service the K&N air filter, the rear airbox cover must be removed. Remove the four 1/4 turn fasteners holding the airbox cover to the engine cover and remove the body panel. Remove the three fasteners securing the intake snorkel assembly, and you will find the air filter under it. The intake snorkel should rotate forward within the roll bar to allow you access to the filter. Reverse this procedure to reinstall the air filter noting that the K&N only fits in the snorkel one way.



AIR FILTER REMOVAL & INSTALLATION (PLASTIC INTAKE)

If your car is equipped with a GM engine that was purchased after November 2006, it may have a plastic intake and require one additional step for removal.

Follow the previous instructions, and then remove the air filter retaining clip after the snorkel is removed. This step will not require any tools.



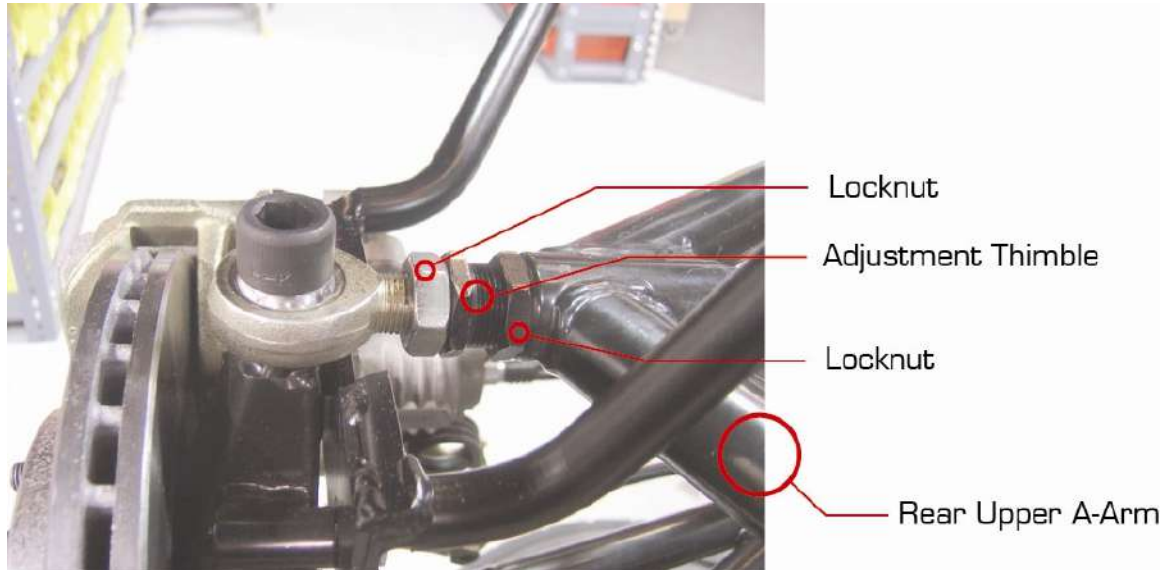
NOTE: The Filtercharger® element must be cleaned and serviced with K&N cleaner and air filter oil per the prescribed routine maintenance procedures as outlined in the product literature that accompanies the Filtercharger®. For additional information, refer to the K&N “Helpful Hints” document in your Owner’s Packet.

SUSPENSION ADJUSTMENTS

Suspension Settings		
Setting	Front	Rear
Ride Height	133.35 mm (5.25 in.) from lowest part of A-arm pivot	106.35 mm (4.1875 in.) from bottom center of rear most chassis tube under transmission
Camber	-1 degree	-1 degree 15 mins
Toe	1 mm (.040 in.) toe out each side	1.5 mm (.059 in.) toe out each side
Tire Pressure	18 PSI, 12 PSI minimum	20 PSI, 12 PSI minimum

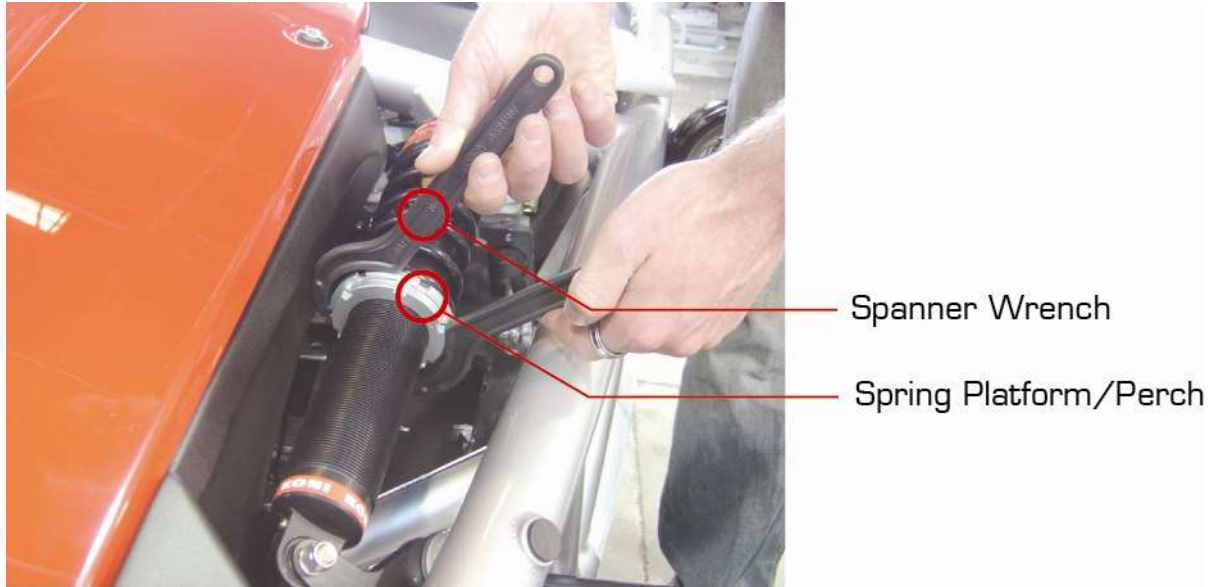
A-ARM ADJUSTMENT

A-Arm adjustments are made with the double threaded "adjustment thimbles" (see photograph) which are located on both the front and rear upper A-arms for use in adjusting wheel camber. The same mechanism can be found at the rear lower A-arm for toe adjustment. The adjustment thimbles are secured with lock nuts which must be re-tightened after any adjustments are made. The vehicle must be re-aligned after any camber adjustment is made.



VEHICLE RIDE HEIGHT ADJUSTMENT

If the vehicle ride height must be adjusted, you must use the spring platform/perch on the shock body instead of the suspension pushrod. This is also the proper method for adjusting corner weighting during suspension set-up. Adjusting ride height with the pushrod will negatively affect your vehicle's suspension and bellcrank geometry.



DAMPER ADJUSTMENT

Your Ariel Atom comes with one of three damper options: (1) Rebound Adjustable, (2) Compression/Rebound Adjustable, or (3) Compression/Rebound Dial Adjustable. Your vehicle will arrive to you with dampers set and vehicle corner weighted from the factory. Adjusting the suspension will require you to re-corner weight the vehicle and should only be done for fine-tuning or personal driving preferences.



30SP8 Reference Sheet



3012 Reference Sheet



2812 Reference Sheet



Rebound:

The rebound adjustment is made with the shock fully extended. It requires tool 1037.74.01.04 or a tool of similar dimension to depress the adjuster button located at the top of the shock body. Depress the button fully and hold it down while adjustments are made. It may require turning the rod slightly to get the button to fully depress. The adjuster has 3 distinct stops (clicks) each of which marks an adjustment position. To adjust the rebound firmer turn the piston rod **clockwise**. When finished, release the button and make sure the button fully springs back into position or otherwise the setting may be changed when re-installed.

Gassing Screw:

The bolt at the bottom of the shock is used to hold the gas pressure inside the damper. **DO NOT LOOSEN THIS OR THE SHOCK WILL NEED TO BE SERVICED!**

Rebound:

The rebound adjuster is located just underneath the upper eye of the shock. Adjustments are made with a 3mm or 2.5mm Allen Key. To adjust the rebound firmer, turn the adjuster wheel counter-clockwise or from the **left (-) side to the right (+) side**. This is one sweep of the adjuster. There will be 6-8 total sweeps available. There are no specific clicks of adjustment to mark the adjustment position and the rebound adjuster can be placed at any position in the adjustment range. **DO NOT FORCE ADJUSTER AS BINDING MAY RESULT!**

Compression:

The compression adjustment is made with the shock fully extended. It requires tool 1037.74.01.04 or a tool of similar dimension to depress the adjuster button located at the top of the shock body. Depress the button fully and hold it down while adjustments are made. It may require turning the rod slightly to get the button to fully depress. The adjuster has 10 distinct stops (clicks) each of which marks an adjustment position. To adjust the compression firmer turn the piston rod **counter-clockwise**. When finished, release the button and make sure the button fully springs back into position or otherwise the setting may be changed when re-installed.

Gassing Screw:

The bolt at the bottom of the shock is used to hold the gas pressure inside the damper. **DO NOT LOOSEN THIS OR THE SHOCK WILL NEED TO BE SERVICED!**



Shock Adjustments:

Damping adjustments for both compression (bump) and rebound are made at a window that is located just underneath the top eye of the shock absorber. Adjustments are made with a 1.5mm Allen Key or tool part number TC1000. Each adjuster has 8 positions of adjustment (7 clicks) with a positive stop at the full soft and full firm setting. To adjust a setting firmer, turn the adjuster wheel counter-clockwise or from the **left (-) side to the right (+) side**.

Compression:

The compression (bump) adjuster is the **BLACK** adjuster wheel that is located furthest from the shock body (the top one on this picture).

Rebound:

The rebound adjuster is the **RED** adjuster wheel that is located closest from the shock body (the bottom one on this picture).



Gassing Screw:

The bolt at the bottom of the shock is used to hold the gas pressure inside the damper. **DO NOT LOOSEN THIS OR THE SHOCK WILL NEED TO BE SERVICED!**

SEAT ADJUSTMENTS

Your Atom comes with one of the following seating options:

Individual Seats

Individual seats are adjusted by a lever under the seat which allows the seat to move to the desired location.

Bench Seats

The bench seat is bolted to the frame with four bolts. There are four different seat locations. To remove the bench seat, you will need a ratchet with either a 9/16 in. socket or a 5/16 in. Allen socket. Be sure the flat washer is in place on the bolts before tightening so you do not damage the bench seat.



TOW POINTS



The tow hooks are designed for track use only. If your car came equipped with tow hooks, they are the recommended points to tow the vehicle. They should not be used as tie-down points, or to lift the vehicle.



MAINTENANCE SCHEDULES

The following schedules describe the maintenance required for your Atom. Your vehicle is dependent on these services to retain its safety and dependability. Refer to the Fluid Level/Fluid Type sections on pages 35-36 and the Replacement Part sections on pages 59-62 for quantities and product types. Refer to the specific component sections for locations, descriptions and/or accessing instructions.

Schedule I: General Reference

Refer to this schedule as an overall guide for performing specific operations at specific mileage intervals.

Schedule II: Before Every Track Event

Follow the steps in this schedule before every track event. Follow this schedule in conjunction with the other schedules.

Schedule III: Initial 50 Miles (80 km)

Follow the steps in this schedule immediately following the initial 50 miles (80 km) of driving your vehicle.

Schedule IV: Initial 300 Miles (480 km)

Follow the steps in this schedule immediately following the initial 300 miles (480 km) of driving your vehicle.

Schedule V: Every 1,000 Miles (1,600 km)

Refer to this schedule at every 1,000 mile (1,600 km) interval of driving your vehicle. Follow this schedule in conjunction with schedules I & II.



MAINTENANCE SCHEDULE FOR THE ARIEL ATOM 2

SCHEDULE I: GENERAL REFERENCE

Component	Service/Operation
<input type="checkbox"/> Engine Oil	Check before every track event or every 1,000 miles (1,600 km). Change as necessary.
<input type="checkbox"/> Engine Oil Filter	Replace during every oil change.
<input type="checkbox"/> Engine Coolant	Check before every track event. Replace every 30,000 miles (48,000 km).
<input type="checkbox"/> Supercharger Aftercooler Coolant	Check before every track event. Replace every 30,000 miles (48,000 km).
<input type="checkbox"/> Air Filter	Check before every track event. Clean and oil every 5,000 miles (8,000 km). The Filtercharger® element must be cleaned and serviced with K&N cleaner and air filter oil per the prescribed routine maintenance procedures as outlined in the product literature that accompanies the Filtercharger®.
<input type="checkbox"/> Spark Plugs	Inspect before every track event and change if necessary.
<input type="checkbox"/> Transmission Fluid	Inspect for leaks before every track event; change every 10,000 miles (16,000 km).
<input type="checkbox"/> Brake Fluid	Inspect levels, condition, and any leakage before every track event.
<input type="checkbox"/> Brake Rotors	Replace when thickness decreases to 19mm, when pulsation is noted, or if cracking or other physical damage is found during inspection. Refer to the brake bedding procedures on page 12.
<input type="checkbox"/> Brake Pads	Inspect for pad damage, thickness issues or deterioration before every event. Replace brake pads when brake rotors are replaced. Refer to the brake bedding procedures on page 12.
<input type="checkbox"/> Brake Hoses & Lines	Inspect brake lines for rubbing, scraping, or any damage.
<input type="checkbox"/> Fuel Lines & Connections	Inspect lines for rubbing or scraping before every track event.
<input type="checkbox"/> Exhaust System	Use a wrench to inspect flange bolts for tightness every 5,000 miles (8,000 km), check gaskets at this time.
<input type="checkbox"/> Tires	Inspect tires for proper pressure and tread wear before and after every track event.
<input type="checkbox"/> Wheels	Check wheel nut torque after the first 50 miles (80 km) of operation and before every track event thereafter. Ensure lug nut torque is 80 ft-lbs.
<input type="checkbox"/> Drive Belt	Check belt for cracking or abnormal wear every 3,000 miles (4,800 km).
<input type="checkbox"/> Rod Ends	Inspect rods ends on Push Rods, Steering Rods, and A-Arms for any signs of fatiguing or wear, replace if parts appear worn. Verify that all check nuts are tight on all rod ends.



MAINTENANCE SCHEDULE FOR THE ARIEL ATOM 2

SCHEDULE II: BEFORE EVERY TRACK EVENT

Component	Service/Operation
<input type="checkbox"/> Engine Oil	Check before every track event. Change as necessary.
<input type="checkbox"/> Engine Oil Filter	Replace during every oil change.
<input type="checkbox"/> Engine Coolant	Check before every track event.
<input type="checkbox"/> Supercharger Aftercooler Coolant	Check before every track event.
<input type="checkbox"/> Air Filter	Check before every track event.
<input type="checkbox"/> Spark Plugs	Inspect before every track event and change if necessary.
<input type="checkbox"/> Transmission Fluid	Inspect for leaks before every track event.
<input type="checkbox"/> Brake Fluid	Inspect levels, condition, and any leakage before every track event.
<input type="checkbox"/> Brake Rotors	Refer to the Brake Bedding Procedures on page12. Inspect and replace when thickness decreases to 19mm, when pulsation is noted, or if cracking or other physical damage is found during inspection.
<input type="checkbox"/> Brake Pads	Inspect for pad damage, thickness issues or deterioration. Replace brake pads when brake rotors are replaced. Refer to the brake bedding procedures on page12.
<input type="checkbox"/> Brake Hoses & Lines	Inspect brake lines for rubbing, scraping, or any damage.
<input type="checkbox"/> Fuel Lines & Connections	Inspect lines for rubbing or scraping before every track event.
<input type="checkbox"/> Exhaust System	Visually inspect exhaust flange bolts for tightness and/or damage.
<input type="checkbox"/> Tires	Inspect tires for proper pressure and tread wear before and after every track event.
<input type="checkbox"/> Wheels	Ensure lug nut torque is 80 ft-lbs.
<input type="checkbox"/> Drive Belt	Check for abnormal wear.
<input type="checkbox"/> Rod Ends	Inspect rods ends on Push Rods, Steering Rods, and A-Arms for any signs of fatiguing or wear, replace if parts appear worn. Verify that all check nuts are tight on all rod ends.

MAINTENANCE SCHEDULE FOR THE ARIEL ATOM 2
SCHEDULE III: INITIAL 50 MILES (80 KM)



Component	Service/Operation
<input type="checkbox"/> Engine Oil	Check and fill as necessary.
<input type="checkbox"/> Engine Oil Filter	No service required.
<input type="checkbox"/> Engine Coolant	Check and fill as necessary.
<input type="checkbox"/> Supercharger Aftercooler Coolant	Check and fill as necessary.
<input type="checkbox"/> Air Filter	No service required.
<input type="checkbox"/> Spark Plugs	No service required.
<input type="checkbox"/> Transmission Fluid	No service required.
<input type="checkbox"/> Brake Fluid	Check level. Fill as necessary.
<input type="checkbox"/> Brake Rotors	Refer to the brake bedding procedures on page12.
<input type="checkbox"/> Brake Pads	Refer to the brake bedding procedures on page12.
<input type="checkbox"/> Brake Hoses & Lines	Inspect brake lines for rubbing, scraping, or any damage.
<input type="checkbox"/> Fuel Lines & Connections	Inspect for damage.
<input type="checkbox"/> Exhaust System	Visually inspect exhaust flange bolts for tightness and/or damage, check gaskets visually to ensure they have not developed a leak.
<input type="checkbox"/> Tires	Inspect for any unusual tread wear.
<input type="checkbox"/> Wheels	Ensure lug nut torque is 80 ft-lbs.
<input type="checkbox"/> Drive Belt	Check for abnormal wear.
<input type="checkbox"/> Rod Ends	Inspect rods ends on Push Rods, Steering Rods, and A-Arms for any signs of fatiguing or wear, replace if parts appear worn. Verify that all check nuts are tight on all rod ends. We recommend replacement of all suspension rod ends at 3000mi or sooner based upon driving habits.

MAINTENANCE SCHEDULE FOR THE ARIEL ATOM 2
SCHEDULE IV: INITIAL 300 MILES (480 KM)



Component	Service/Operation
<input type="checkbox"/> Engine Oil	Check and fill as necessary.
<input type="checkbox"/> Engine Filter	No service required.
<input type="checkbox"/> Engine Coolant	Check and fill as necessary.
<input type="checkbox"/> Supercharger Aftercooler Coolant	Check and fill as necessary.
<input type="checkbox"/> Air Filter	No service required.
<input type="checkbox"/> Spark Plugs	Inspect before every track event and change if necessary.
<input type="checkbox"/> Transmission Fluid	No service required.
<input type="checkbox"/> Brake Fluid	Check level; fill as required.
<input type="checkbox"/> Brake Rotors	Inspect and replace when thickness decreases to 19mm, when pulsation is noted, or if cracking or other physical damage is found during inspection.
<input type="checkbox"/> Brake Pads	Inspect for pad damage, thickness issues or deterioration. Replace brake pads when brake rotors are replaced.
<input type="checkbox"/> Brake Hoses & Lines	Inspect brake lines for rubbing, scraping, or any damage.
<input type="checkbox"/> Fuel Lines & Connections	Inspect for damage.
<input type="checkbox"/> Exhaust System	Visually inspect exhaust flange bolts for tightness and/or damage, check gaskets visually to ensure they have not developed a leak.
<input type="checkbox"/> Tires	Inspect for any unusual tread wear.
<input type="checkbox"/> Wheels	Ensure lug nut torque is 80 ft-lbs.
<input type="checkbox"/> Drive Belt	Check for abnormal wear.
<input type="checkbox"/> Rod Ends	Inspect rods ends on Push Rods, Steering Rods, and A-Arms for any signs of fatiguing or wear, replace if parts appear worn. Verify that all check nuts are tight on all rod ends. We recommend replacement of all suspension rod ends at 3000mi or sooner based upon driving habits.



MAINTENANCE SCHEDULE FOR THE ARIEL ATOM 2

SCHEDULE V: EVERY 1000 MILES (1600 KM)

Component	Service/Operation
<input type="checkbox"/> Engine Oil	Check before every track event or every 1,000 miles (1,600 km). Change as necessary.
<input type="checkbox"/> Engine Oil Filter	Replace during every oil change.
<input type="checkbox"/> Engine Coolant	Check before every event. Replace every 30,000 miles (48,000 km).
<input type="checkbox"/> Supercharger Aftercooler Coolant	Check before every event. Replace every 30,000 miles (48,000 km).
<input type="checkbox"/> Air Filter	Clean and oil every 5,000 miles (8,000 km)
<input type="checkbox"/> Spark Plugs	Inspect before every track event and change if necessary.
<input type="checkbox"/> Transmission Fluid	Change every 10,000 miles (16,000 km).
<input type="checkbox"/> Brake Fluid	Check level. Fill as needed.
<input type="checkbox"/> Brake Rotors	Inspect and replace when thickness decreases to 19mm, when pulsation is noted, or if cracking or other physical damage is found during inspection.
<input type="checkbox"/> Brake Pads	Inspect for pad damage, thickness issues or deterioration. Replace brake pads when brake rotors are replaced.
<input type="checkbox"/> Brake Hoses & Lines	Inspect brake lines for rubbing, scraping, or any damage.
<input type="checkbox"/> Fuel Lines & Connections	Inspect for damage.
<input type="checkbox"/> Exhaust System	Visually inspect exhaust flange bolts for tightness and/or damage. Use a wrench to inspect flange bolts for tightness every 5,000 miles (8,000 km), check gaskets visually to ensure they have not developed a leak.
<input type="checkbox"/> Tires	Inspect for any unusual tread wear.
<input type="checkbox"/> Wheels	Ensure lug nut torque is 80 ft-lbs.
<input type="checkbox"/> Drive Belt	Check for abnormal wear.
<input type="checkbox"/> Rod Ends	Inspect rods ends on Push Rods, Steering Rods, and A-Arms for any signs of fatiguing or wear, replace if parts appear worn. Verify that all check nuts are tight on all rod ends. We recommend replacement of all suspension rod ends at 3000mi or sooner based upon driving habits.

REPLACEMENT PART INFORMATION FOR VEHICLES WITH GM ENGINES

PART	BRAMMO PART #	MFR. PART #	TYPE
Battery All Vehicles	AA-PP-036	Braille Auto B20145	Dry Cell - Sealed
O2 Sensor GM	AA-GM-069	AC Delco 213-3138 GM 12578576	
Air Filter GM Corrugated intake	AA-PP-136	K&N 33-2282	2004-2007 Suzuki Aerio
Air Filter GM Plastic Intake	AA-PP-337	K&N 33-2340	
Fuel Filter GM	AA-PP-083	GM 22734980	
Oil Filter GM	AA-GM-006	GM 12580254	
Spark Plugs GM	None		LTR5GP NGK PK16PR-P11 ND LTR51X-11 NGK PT16VR13 ND (or equivalent)
Headlight Bulbs All Vehicles	AA-PP-121	H4	H4

REPLACEMENT PART INFORMATION FOR VEHICLES WITH GM ENGINES (CONTINUED)

PART	BRAMMO PART #	MFR. PART #	TYPE
Engine Serpentine Belt GM Base & Stage 1	AA-GM-065	NAPA/Gates 25-060512 (20mm x 1315mm)	
Engine Serpentine Belt GM Stages 2 & 3	AA-GM-066	NAPA/Gates 25-060505 (20mm x 1295mm)	
Dampers Base Front Base Rear Mid Level Front Mid Level Rear Race Front Race Rear	AA-PP-153 AA-PP-232 AA-PP-178 AA-PP-233 AA-PP-154 AA-PP-234	KONI 30 BRM1 SP-8 30 SP8 BRM2 3012 BRM1 B16 3012 BRM2 2812 BRM1 2812 BRM2	Rebound Adjustable Rebound Adjustable Double Adjustment Double Adjustment Double External Adjustment Double External Adjustment
Small 1/4-turn fasteners	AA-HX-002		
Large 1/4-turn fasteners	AA-HX-003		
Exhaust Gasket All Vehicles	AA-PP-081	NAPA F7135	
Rod Ends All Vehicles	AA-PP-316 AA-PP-317 AA-PP-318	Aurora Bearing AM-6T Aurora Bearing AB-6T Aurora Bearing AB-10T	3/8-24 Rod End, Right Hand 3/8-24 Rod End, Left Hand 5/8-18 Rod End, Left Hand

REPLACEMENT PART INFORMATION FOR VEHICLES WITH HONDA ENGINES

NOTE: *Honda and Acura parts are both made by the American Honda Motor Company. Honda parts end with a number; Acura part numbers end with a letter. The products are interchangeable*

PART	BRAMMO PART #	MFR. PART #	TYPE
Battery All Vehicles	AA-PP-036	Braille Auto B20145	Dry Cell - Sealed
02 Sensor Honda	AA-HN-014	36531-PRB-A01	
Air Filter Honda	AA-PP-136	K&N 33-2282	
Fuel Filter Honda	AA-PP-083	GM 22734980	
Oil Filter Honda	None	15400-PLMA02	
Spark Plugs Honda	None	IK 20	Denso Iridium
Headlight Bulbs All Vehicles	AA-PP-121	BP 1260 / H4	H4
Engine Serpentine Belt Honda Non-Supercharged	AA-HN-016	60495	Gates
Engine Serpentine Belt Honda Supercharged	AA-HN-018	60478	Gates

REPLACEMENT PART INFORMATION FOR VEHICLES WITH HONDA ENGINES (CONTINUED)

PART	BRAMMO PART #	MFR. PART #	TYPE
Dampers		KONI	
Base Front	AA-PP-153	30 BRM1 SP-8	Rebound Adjustable
Base Rear	AA-PP-232	30 SP8 BRM2	Rebound Adjustable
Mid Lvl Front	AA-PP-178	3012 BRM1 B16	Double Adjustment
Mid Lvl Rear	AA-PP-233	3012 BRM2	Double Adjustment
Race Front	AA-PP-154	2812 BRM1	Double External Adjustment
Race Rear	AA-PP-234	2812 BRM2	Double External Adjustment
Small 1/4-turn fasteners	AA-HX-002		
Large 1/4-turn fasteners	AA-HX-003		
Exhaust Gasket All Vehicles	AA-PP-081	NAPA F7135	
Rod Ends All Vehicles	AA-PP-316 AA-PP-317 AA-PP-318	Aurora Bearing AM-6T Aurora Bearing AB-6T Aurora Bearing AB-10T	3/8-24 Rod End, Right Hand 3/8-24 Rod End, Left Hand 5/8-18 Rod End, Left Hand

BRAKE PAD OPTIONS

Base Brake Package Parts

PART DESCRIPTION	BRAMMO PART #	MANUFACTURER AND MFR. PART #	QTY.
PBR 54mm floating front caliper (left)	AA-BK-002	PBR BCB843199PL	1
PBR 54mm floating front caliper (right)	AA-BK-003	PBR BCB843200PL	1
PBR 40.5mm floating rear caliper w/ e-brake (left)	AA-BK-004	PBR BCB821020PL	1
PBR 40.5mm floating rear caliper w/ e-brake (right)	AA-BK-005	PBR BCB821019PL	1
Single piece ventilated 10.3 rotor (262 x 21mm)	AA-BK-006	Galfer SKU#A24255VF	4
Front pads	AA-BK-008	PBR SS-7662X	1
Organic rear brake pads for 1993-1997 Chevrolet Camaro	AA-BK-055	NAPA SS-7301-M	1

Sport Brake Package Parts

PART DESCRIPTION	BRAMMO PART #	MANUFACTURER AND MFR. PART #	QTY.
Wilwood 4 x 35.1mm Dynalite caliper (L & R)	AA-BK-010	Wilwood 120-6806-R/L	2
PBR 40.5mm floating rear caliper/parking brake (left)	AA-BK-004	PBR BCB821020PL	1
PBR 40.5mm floating rear caliper/parking brake (right)	AA-BK-005	PBR BCB821019PL	1
Single piece ventilated 10.3 front rotor (262 x 21mm)	AA-BK-006	Galfer SKU#A24255VF	4
Front pads-Type 7112 Q (street compound-4 pads)	AA-BK-015	Wilwood 15Q-6824K	1
Organic rear brake pads for 1993-1997 Chevrolet Camaro	AA-BK-055	NAPA SS-7301-M	1

Track Brake Package Parts

PART DESCRIPTION	BRAMMO PART #	MANUFACTURER AND MFR. PART #	QTY.
Mr. Parker parking brake caliper	AA-BK-019	Revolution Brake Mr. Parker	2
Mr. Parker parking brake pads (4 pads)	AA-BK-035	Wilwood 150-8937K/6823K	1
Aluminum Rotor Hat Front and Rear	AA-UP-044-1		4
Wilwood 4x 35.1mm Dynalite caliper (L & R)	AA-BK-010	Wilwood 120-6806-R/L	4
Wilwood two-piece vented & slotted rotor (right) 279.4x20.6mm	AA-BK-054	Wilwood 160-5840-SR	2
Wilwood two-piece vented & slotted rotor, left (279.4 x 20.6mm)	AA-BK-057	Wilwood 160-5840-SL	2
Pads, Type 7112 BP-20 (medium-high compound-4 pads)	AA-BK-056	Wilwood 150-9413K	2

Race Brake Package Parts

PART DESCRIPTION	BRAMMO PART #	MANUFACTURER AND MFR. PART #	QTY.
Alcon 4x34.9 mm fixed racing caliper (left)	AA-BK-036	Alcon CAR3653D01ASLL	2
Alcon 4x34.9 mm fixed racing caliper (right)	AA-BK-026	Alcon CAR3653D01ASRL	2
Mr. Parker parking brake caliper	AA-BK-019	Revolution Brake Mr. Parker	2
Front pads set (4 pads)	AA-BK-033	Alcon PNP4436X502.4	2
Mr. Parker brake pads (4 pads)	AA-BK-035	Wilwood 150-8937K	1
Front Aluminum Rotor Hat	AA-UP-044-1		2
Rear Aluminum Rotor Hat	AA-UP-060		2
Wilwood two-piece vented & slotted rotor, right (279.4 x 20.6mm)	AA-BK-054	Wilwood 160-5840-SR	2
Wilwood two-piece vented & slotted rotor, left (279.4 x 20.6mm)	AA-BK-057	Wilwood 160-5840-SL	2

Ariel Atom Standard Paint Codes

COLOR DESCRIPTION	MFG	PART NUMBER
Brammo Silver Chassis (Touch Up Paint Color)	Valspar	3335324 GM 12/9301 1984-1986
Flat Black found on Suspension Components	Duplicolor	DA1603 Semi-Gloss Black
Brammo Black Body Panels	BASF	Diamont Black D403
Brammo Blue Body Panels	Valspar	Universal Intermix, Color Base 33- L1807 converted from No. 840
Brammo Green Body Panels	TBD	
Brammo Orange Body Panels	Valspar	333A4632
Brammo Red Body Panels	Glasurit 55	SRO40-50 Stock No. 577980
Brammo Yellow Body Panels	Valspar	333Y1129L
Custom Chassis Color		
Custom Body Panel Color		

SERVICE NOTES

Date	Odometer Reading	Serviced By	Maintenance Performed	Observations

TRACK NOTES

Date	Location	Temperature	Tire Pressure	Suspension Settings	Observations

TRACK NOTES

Date	Location	Temperature	Tire Pressure	Suspension Settings	Observations