

HASPORT PERFORMANCE

Installation Instructions For:
Part Number BBK1 for
some K20 and K24 engines
into 1992-1996 Honda Prelude

Hasport Performance mounts are the result of extensive research and engineering. All mounts are designed with up to date solid modeling software. Each mount is constructed of lightweight 6061-T6-billet aluminum and CNC machined in our state of the art machining facility. Hasport Performance motor mounts control engine movement, transferring more power to the wheels. All mounts and brackets have a limited lifetime warranty against any defects. Complete warranty information is available at www.hasport.com.

Please read all instructions before proceeding with the installation

BBK1

INSTALLATION INSTRUCTIONS

WARNING:

The instructions here, deal only with the installation of the engine and transmission using Hasport's BBK1 mount kit. There are no instructions for hooking up Air Conditioning, Power Steering, Wiring, Emissions Equipment, Exhaust or other peripherals. Please read through the entire instructions before attempting this engine swap. If you have questions regarding other aspects of this swap please call Hasport @ 602.470.0065

List of Parts included in this kit:

Left-hand Mount		Right-hand Mount		Rear Mount	
					
Qty	Description	Qty	Description	Qty	Description
2	M12 x 1.25 x 50 Hex Bolt	2	M12 x 1.25 x 40 Hex Bolt	3	M12 x 1.25 x 45 Hex Bolt
2	M12 x 1.25 Lock Nut	2	M12 Flat Washer	3	M12 Flat Washer
4	M12 Flat Washer				
Left-hand Bracket		Right-hand Bracket		Rear Bracket	
					
Qty	Description	Qty	Description	Qty	Description
1	M12 x 1.25 x 30 Hex Bolt	1	M12 x 1.25 x 120 Hex Bolt	1	M12 x 1.25 x 100 Hex Bolt
1	M12 x 1.25 x 40 Hex Bolt	1	M12 x 1.25 Lock Nut	4	M12 x 1.25 x 35 Hex Bolt
1	M10 x 1.25 x 30 Flange Bolt	2	M12 Flat Washer	1	M12 x 1.25 Lock Nut
2	M12 Flat Washer			6	M12 Flat Washer

Extra Tools Required for this Swap
Center Punch, Electric Hand Drill, 1/8" Drill Bit,
3/8" Pilot Point Drill Bit, Die Grinder

Additional Recommended Items

Factory Service Manual for 1994 -1997 Honda Accord.
 (Available from www.helminc.com or Honda/Acura Dealer)

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This is a complicated engine swap requiring modifications to the chassis. If you have never performed an engine swap before, Hasport recommends that you have this swap performed by a competent shop. These instructions pertain **ONLY** to the **ENGINE MOUNTING** of a K-Series motor into a 92-96 Prelude chassis. There are still many other parts that will be needed for proper operation. These parts are under development by Hasport and other companies.

Our kit will allow the mounting of certain K-series engines. These engines include the US Spec 2003 up **Accord K24A4, Element K24A4, TSX K24A2 and Accord Euro K20A and K24A**. A manual transmissions from the 03-up US market Accord, the Accord Euro and Acura TSX must also be used. The shift cables from these same models will need to be used. The kit will not work with Civic or RSX K-series transmissions.

It is important to remember that engine swaps are not legal in all states or countries. It's best to check local laws regarding engine swaps before proceeding.

A general list of additional parts needed for the K-Series swap in the 9492-96 Prelude is listed below.

Quantity	Description
1	Hasport CDK1 Bolt In Mount Kit (This Kit)
1	Manual Transmission Intermediate Shaft (from K-series powered Civic, RSX, Accord or RSX)
1	Hasport Performance BBK-series Swap Axles (when ordering give the intermediate shaft information)
1	K-Series Engine complete with alternator
1	K24 Transmission from 02-07 Accord or Acura TSX
1	02-04 RSX or 02-05 Civic Si K-Series ECU and engine harness
1	02-04 RSX or 02-05 Civic Si Radiator and radiator fan shroud
1	K-Series Swap header

Things you should know about this swap

The following is a list of information you should know before performing this swap. Please visit www.hasport.com for the latest information on this swap.

1. Ground clearance – The K24 engine is a tall engine, it is 2 inches taller than the H22 and as much as 4 inches taller than some of the F-series single cam engines. Although the Hasport engine mounts hold the engine very close to the hood, ground clearance is still less than it would be with an F or H-series engine. If your car is very low, this could result in damage to the oil pan during normal driving.
2. Power Steering – The Prelude power steering hose will not work with the K24 power steering pump. New power steering hoses need to be made and the reservoir will need to be relocated.
3. AC – To retain AC, you will need an RSX or EP3 AC compressor and have custom AC lines made to fit the car. The TSX compressor can be used also, but the air compressor's thermal protection circuit will need to be converted from 3 wire to 1 wire type found on the RSX and EP3. On top of custom AC lines, you will also need an aftermarket front crossmember. The stock front crossmember won't allow you to mount the K-series compressor.
4. Shift mechanism – The TSX or 02-07 Accord shift mechanism and cables are needed to operate the TSX and Accord K-series transmissions.
5. Cooling – The Prelude's stock radiator has the outlets in the wrong location for easy use with the K24. It can be used with custom hoses. You can use the EP3 radiator by relocating the bottom mounts and making new top brackets. If you choose this route, you can also use the Accord condensor fan, it bolts to the EP3 radiator. For the radiator cooling fan take the stock Accord fan and blade and transfer it to an EP3 radiator fan shroud.
6. Clutch Actuation – The Accord clutch master will operate the K-series slave cylinder. You will need some custom lines to make the connection.
7. Fuel Line – The K-series engine's fuel pressure regulator is located in the fuel tank on the K-series powered cars. You will need to add a fuel pressure regulator along with some custom fuel lines.
8. Exhaust – The K-series swap header from Hasport made by DC Sports will bolt up and clear the crossmember. Modifications to the exhaust need to be made to retain the catalytic converter.

Removing the Engine: (Save all Bolts, You May Need One!)

1. Discharge R134A from AC system. Disconnect the hoses from the compressor. You will be removing the compressor with the engine. (Have a professional evacuate your system.)

2. Follow the Prelude Service Manual instructions for removing the engine. Although the Service Manual shows a hoist being used and lifting the engine out of the top, this process can be simplified if you have access to a chassis lift. With the lift, you can use a flat surface at least 10 inches tall to support the engine from underneath while unbolting it from the vehicle. After it is unbolted use the lift to raise the chassis off the engine. One key point to pay attention to, is to remove the front suspension crossmember and radius rods. It's impossible to remove or install the new engine from the bottom with the crossmember and radius rods in place. It is a good idea to also remove the radiator and fans for extra working room.

Preparing the Engine Bay:

1. The major change to the engine bay is the installation of the new passenger side engine bracket from Hasport. It will replace the current right-hand transmission bracket in the car.



2. To make removing the existing transmission bracket easier, you will need these tools:

- Center punch
- 1/8 inch drill bit
- 3/8 inch or larger pilot point drill bit



3. Begin by center punching all the spot welds on the mount. This is so the drill bit won't drift when drilling. Next use the 1/8 inch drill to drill a hole approximately 3/16 inches deep. This will prevent the pilot point drill from drifting. Don't worry if you drill completely through the sheet metal. Now use the pilot point drill to drill a hole as deep as the bracket sheetmetal is thick.



4. There will probably be a few small welds on the edges of the mount bracket too. Use a die grinder to remove them.

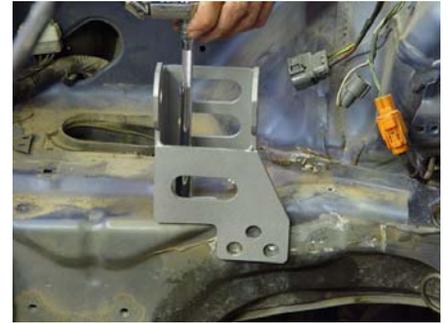
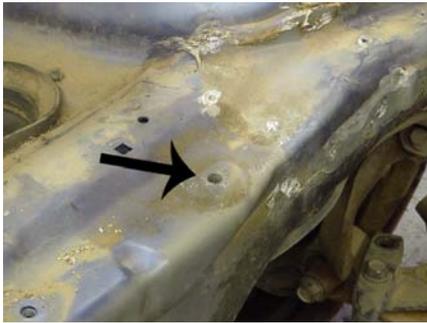


5. A chisel and hammer can now be used to finish removing the bracket. Once it is off use the die grinder with a sanding wheel to remove any excess material left over.



- To properly locate the Hasport engine bracket on the frame rail, locate the battery bracket bolt hole shown in the picture below. Using one of the battery tray bolts bolt the bracket into place through the hole. Tighten the bolt finger tight. This will locate the Hasport engine bracket in the proper location. Outline the bracket and it's holes where they come in contact with the frame rail. The paint around the markings should be removed before welding the bracket to the frame rail to insure a good weld. The holes are for rosette welds, which are stronger than simply welding along the edge of the bracket.

Because of the age of the CD Accords, there may be an issue with your particular car's straightness. It is a good idea to not weld in the bracket at this time, but to leave it loose until you fit the new engine in for the first time. During initial fitting, you can see if any minor adjustments need to be made to the right-hand brackets location. Once you have determined the engine fits properly, then you can tack weld the bracket while the engine is in. then remove the engine and finish welding the bracket onto the framerail.



- The engine bracket comes sand blasted and ready to paint. If you would like the bracket to match the color of your car, you can find information on your chassis's color on a sticker on the driver's side doorjamb. With this information you can go to most any automotive paint store and get the correct color mixed and put into a spray can.



- Get the three 12mm x 45mm Hex bolts and 12mm washers from the rear mount hardware bag.



- At this time install the new Hasport rear engine mount on the rear engine crossmember. Torque the bolts to 43 ft-lb



11. If you are installing the engine from the bottom, you can install the left-hand mount at this time. Use the original bolt for the Prelude mount for the new K-series mount.



Prepping the Motor:

1. If your K24 is from an Accord or TSX you will need to replace the bracket on the timing chain cover and replace it with a bracket from the CRV. The two shorter bolts that hold the TSX bracket to the block will be reused and a third one will need to be purchased along with the CRV bracket. The two parts are available from either Hasport Performance or your Honda dealership. The part numbers for the bracket and bolt are:

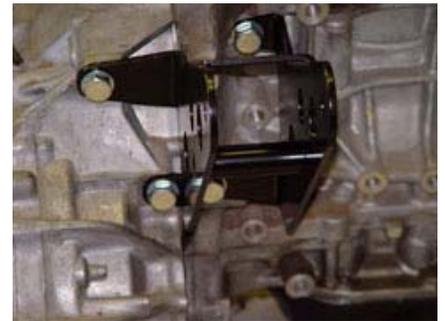
Engine Side Mounting Bracket 11910-PPA-000

Bolt (10x85) 90008-PPA-000

Install the new bracket in the position of the old bracket.



2. Next install the rear engine bracket. Grab the four 12mm x 35mm hex bolts and 12 mm washers. The bracket will use two holes on the transmission and two on the engine. Torque the bolts to 43 ft-lbs. To make it easier to bring the engine in from the bottom, the bracket can be installed once the engine is in the car. It is suggested that you test fit the bracket while the engine is out of the car first so you can see what is involved in bolting it place. It is much easier to see what tools are required and which holes will be used.



3. Next install the left-hand transmission bracket. You will need
- One 12mm x 30mm hex bolt
 - One 12mm x 40mm hex bolt

- Three 12mm washers
- One 10mm x 30mm flange bolt or 10mm x 30mm hex bolt with 10mm washer

The bracket will use the two holes large 12mm holes on top of the transmission and one 10mm hole on the end of the transmission. Use the longer 12mm bolt on the rear most hole on top of the transmission. Torque the 12mm bolts to 43 ft-lbs and the 10mm bolt to 28 ft-lbs.



Installing the Motor:

1. Installing from the bottom

Place the engine and transmission on an engine stand or cart positioned under the vehicle. Make the engine as level as possible on the cart, this will aid installation.

Installing from the top

Attach the engine to a hoist keeping it as level as possible, this will aid installation.

2. Lower the car or the engine slowly taking care not to hit the engine on the way down. Keep close watch on the VTEC solenoid on the rear of the engine and the clutch actuator fork and slave cylinder on the front of the transmission. You may need to twist the engine while lowering the car to avoid contact. This is a two-person job.



3. Gather up the hardware for the individual mounts and put them within easy reach of the different mounts. The mounts will be bolted up in this order:
 1. Rear
 2. Left-hand
 3. Right-hand

Once all the mounts are bolted up they should be tightened in the same order to a torque of 43 ft-lbs.



Rear mount hardware



Left-hand mount hardware



Right-hand mount hardware

4. Once the rear bracket is level with the rear engine mount slide the bracket over the mount and install the 12mm x 100mm bolt. Use a 12mm washer on each side with the 12mm nylon lock nut.



5. Connect the left-hand mount to the bracket using the two 12mm x 50mm hex bolts and 12mm nylon lock nuts. Use washers on top and bottom of the bolts. Tighten the bolts snugly.



6. Bolt the right-hand mount to the engine bracket using the two 12mm x 40mm bolts with 12mm washers. Now bolt the mount into the bracket with the 12mm x 120mm bolt, two 12mm washers and 12mm nylon lock nut. Now you can go back and torque all three mount's bolts to 43 lbs-ft.



Fini



Happy Motoring