

HASPORT PERFORMANCE

Installation Instructions For:
Part Number EGH3 for
H22, H23 and F22 engines with Prelude Transmissions
into 1992-1995 Honda Civic, 1994-1997 Del Sol
And 1994-2001 Acura Integra

Hasport Performance mounts and mount kit accessories are designed in house using the latest in CAD/CAM Engineering software. The designs are the result of many years of pioneering Honda engine swaps and Hasport's extensive racing experience. 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

EGH3

INSTALLATION INSTRUCTIONS

WARNING:

The instructions here, deal only with the installation of the engine and transmission using Hasport's EGH3 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
1	M12 x 1.25 x 35mm Bolt	2	M10 x 1.25 x 50mm Bolts	1	M10 x 1.25 x 35mm Bolts
2	M12 Flat Washers	2	M10 Flat Washers	1	M10 Flat Washers
1	M12 Nyloc Nut	1	M12 x 1.25 x 100mm Bolt	1	M12 x 1.25 x 100mm Bolt
		1	M12 Nyloc Nut	2	M12 Flat Washers
		2	M12 Flat Washers	1	M12 Nyloc Nut
		Right-hand Bracket		Rear Bracket	
					
		Qty	Description	Qty	Description
		4	M10 Flat Washers	4	M12 x 1.25 x 70mm Bolts
		2	M10 x 1.25 x 150mm Bolts	5	M12 Flat Washers
		2	M10 Nyloc Nuts	1	M12 Nyloc Nut

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 the chassis you are using
 (Available from www.helminc.com or Honda/Acura Dealer)

Please read all instructions before proceeding with the installation

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 H-series and some F-series engine with 94 and up Prelude non-SH 5 speed transmission into a 92-95 Civic, 92-97 Del Sol, and 94-01 Integra chassis. There are still many other parts including wiring and ECU that will be needed for proper operation of the engine. These parts may be available from Hasport and other companies.

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 some of the additional parts needed for the K-Series swap with Accord and TSX transmission is listed below.

Quantity	Description
1	Hasport EGH3 Bolt In Mount Kit (This Kit)
1	H or F-Series Engine complete (see list of recommended engines below)
1	Hasport Performance EGH-series Swap Axles
1	H or F-Series Manual Transmission from 92-2001 Prelude (not including SH)
1	H or F series Prelude Intermediate Shaft (Not including SH)
1	Compatible Engine harness and ECU

List of compatible engines is below.

Engine Code	Year and Model
F20-22	JDM DOHC Accord and Prelude engines
F22A	US 90-93 Accord engines
H22 and H23	US and JDM Prelude engines

List of compatible transmissions below.

Engine Code	Description
F22, H22-23	All USDM 1992-2001 Prelude 5 speed, excluding SH model
F22-23, H22	All JDM 1992-2001 Prelude 5 speed, excluding SH model

Things you should know about this swap

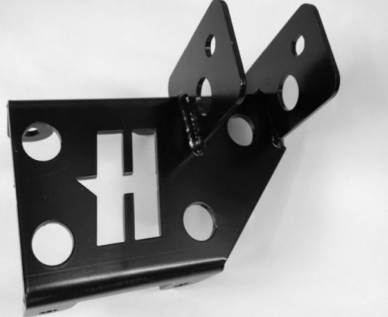
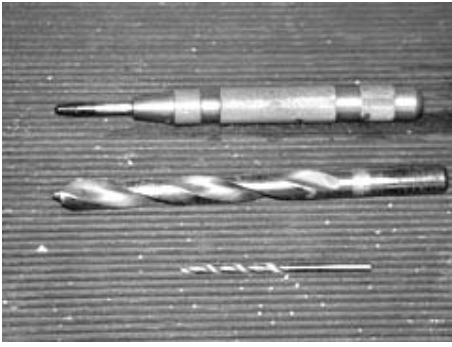
The following is a list of information you should know before performing this swap. Please visit www.hasport.com for the latest information on this swap.

1. Ground and hood clearance – The H22 engine is a tall engine. Hasport engine mounts are designed to hold the engine with as much ground clearance as possible.
2. Power Steering – The Civic or Integra power steering hose will not work with the H-series power steering pump. Just like with K-series swaps, 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 AC compressor from a H-series engine and have custom AC lines made to fit the car.
4. Shift mechanism – An Accord or Prelude shifter box and cables are needed to operate the H/F-series transmissions.
5. Cooling and radiator – The Civic and Del sol radiators can be used.
6. Clutch Actuation – The stock clutch master will operate the H/F-series slave cylinder. You will need some custom lines to make the connection.

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

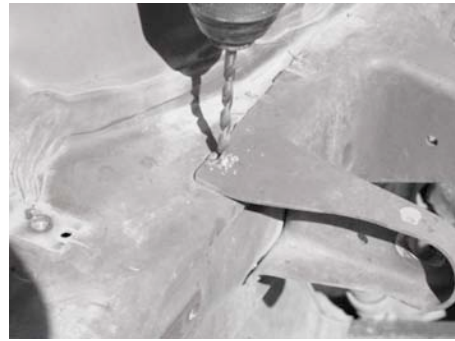
1. Discharge R134A from AC system. Disconnect the hoses from the compressor. You will be removing the compressor with the engine. (Have a professional evacuate your system.)
2. Follow the appropriate Honda/Acura Service Manual's instructions for removing the engine from your car. Although the Service 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 about 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. You should remove the radiator and fans for extra working room before you try removing the engine.

Preparing the Engine and 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 or 1/2 inch pilot point drill bit	

Preparing the Engine and Engine Bay:

- 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 sheet metal is thick.



- 4 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 left over material.

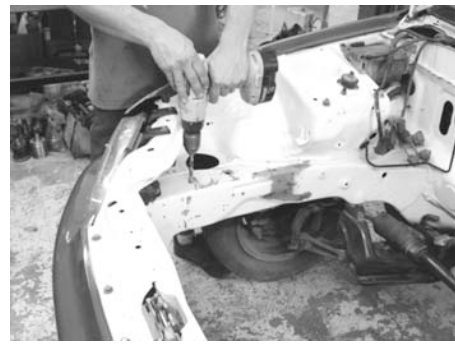
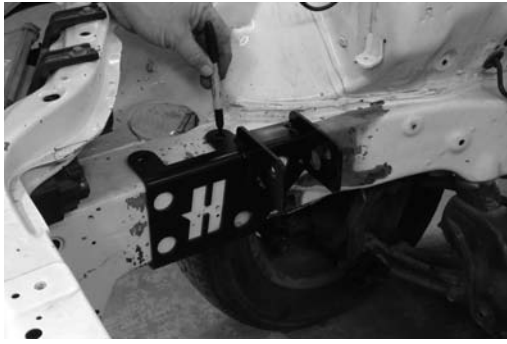


- 5 Installing the right-hand mount bracket will require the two 10mm x 150mm bolts, four 10mm washers and two 10mm nyloc nuts supplied with the Hasport mount kit.



- 6 Start by sliding the bracket over the frame rail so the holes at the bottom of the bracket line up with the torque mount holes on the bottom of the frame rail. Next mark the frame rail on the top using the mount bracket as a guide. After removing the bracket, use a 3/8ths inch drill bit and drill the two holes in the frame rail.

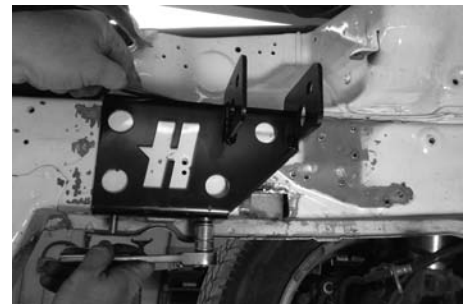
Preparing the Engine and Engine Bay:



- 7 Slide the bracket back on the frame rail and thread the two bolts down through the bracket and out the bottom. Tighten the bolts to about 10ft/lbs of torque. Be careful to check the alignment of the bracket so the bolts thread easily all the way through the bracket. Do not over tighten.



- 8 Using a wrench to keep the bolt from moving install the 10mm Nyloc nuts and tighten them to 36 ft/lbs of torque.



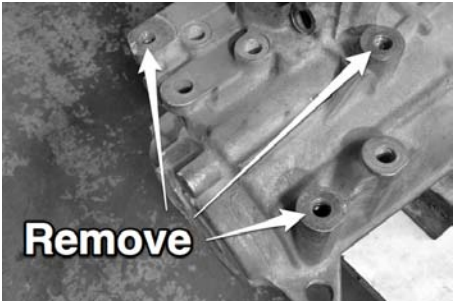


- 9 To install the rear mount you will need the 10mm x 35mm bolt and washer along with two of the stock 10mm rear mount bolts.



- 10 At this time install the new Hasport rear engine mount on the rear engine crossmember. Use the longer Hasport supplied bolt for the front of the mount and the two stock bolts at the rear. Leave the bolts finger tight at this time.



Preparing the Engine and Engine Bay:

11	On the Prelude transmission remove the three studs from the top of the transmission. This will aid in installing the transmission mount. You will be using the Hasport supplied hardware.	
12	When the engine is installed, this part of the transmission (shown to the right) will make contact with the underside of the frame rail.	
13	Using the left-hand mount as a guide a quick check fit of the engine will show you where on the frame rail the contact will occur. A relief hole or dent should be put in the frame rail to allow clearance for this part of the transmission.	

Installing the Engine:

Installing from the bottom

Installing from the bottom is the preferred way to install an engine into a Honda car. These instructions will deal with installing the engine 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. Also remove the throttlebody and Air Intake Bypass vacuum reservoir to prevent them from being broken during installation.

Installing from the top

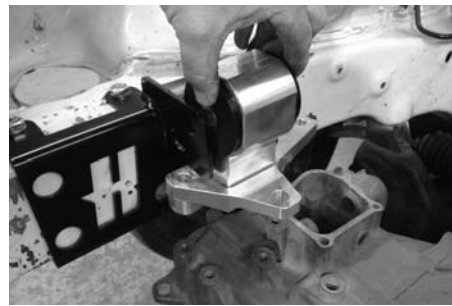
If you don't have access to a lift, the engine can be installed from the top. Honda engines come with special hangers to help with attaching it to a hoist. Be careful with the hoist chain and don't let it do damage to the throttlebody components or other sensors on the engine. Removing the hood will make removal and installation easier.

Installing the Engine:

- 1 Lower the car or the engine slowly taking care not to hit the engine on the way down. Keep a close eye on the subframe to make sure it doesn't come into contact with any parts of the engine or wiring harness. It is a good idea to remove the header, alternator and brackets to ease installation.



- 4 Once the engine is in the bay, but before the car is lowered completely, install the right-hand mount and bolt it to the transmission using the two 10mm x 50mm bolts and one 10mm x 30mm bolt. Leave all the bolts finger tight at this time. The 12mm x 100mm bolt, nut and washers will be used in Step 8.

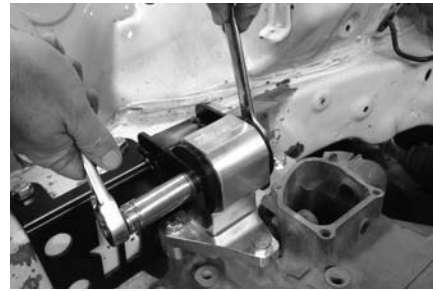


- 7 Lower the car the rest of the way to line up the left-hand mount. Install it by sliding the mount over the stud using the stock hardware to attach it. Next use the stock bolt to attach the mount to the frame rail bracket. Tighten all the left-hand mount hardware to 43 ft/lbs.



- 8 Next lower the car and bolt the transmission mount to the Hasport bracket using the 12mm x 100mm bolt, two washers and nut. Torque the right-hand mount 12mm hardware to 43 ft/lbs and the 10mm hardware to 33 ft/lbs.

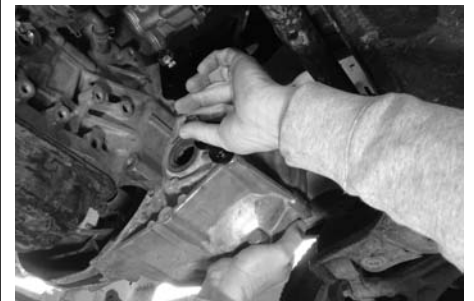
Installing the Engine:



The Hasport rear bracket is designed to be used with either the EG/DC or EK chassis. For the EG and DC the hole indicated in the picture to the right will be used when attaching it to the rear mount.



- 9 Now that the engine is supported by the left and right-hand mounts we can connect the rear bracket to the transmission. Use one of the 12mm x 70mm bolts with a nyloc nut and washers to attach the bracket to the engine block. Use the 12mm x 100mm bolt nyloc nut and washers to attach the bracket to the rear mount. Next install the other three 12mm x 70mm bolts through the rear bracket into the transmission. You may need to lift the rear of the engine slightly to get the other bracket holes to line up with the transmission.



- 10 Once all the bolts are in , tighten all the bolts to 43 ft/lbs.