

Honda Racing

HPD 

Honda GXH50 Manual



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Safety Precautions

The information in this manual is intended for use by qualified, professional technicians. Attempting service or repairs without the proper training, tools and equipment could cause injury or death to you and others. It could also cause damage to the engine / vehicle or create an unsafe condition.

This manual describes the proper methods and procedures for the race kit installation related to your chassis, in addition to service and repair procedures described in the Honda GXH50 service manual. Some procedures require the use of specifically designed tools and dedicated equipment. Any person who intends to use a replacement part, a service procedure, or a tool that is not recommended by Honda or the race sanctioning body must determine the risk to their personal safety and consider the safe operation of the vehicle. Any error or oversight while performing this conversion or service can result in faulty operation, damage to the vehicle, or injury to yourself or others.

Proper service and maintenance is essential to the racer's safety and the reliability of the race car. If you need to replace any parts, always use the correct parts supplied by Honda Performance Development, Inc., or American Honda Motor Co., Inc. Do not use inferior quality or unapproved parts.

Because this manual is intended for professional technicians, we do not provide warnings for basic shop safety practices – for example, hot parts = wear gloves. If you have not received shop safety training or do not feel confident about your knowledge about safe servicing practices, we recommend that you do not attempt the procedures described in this manual. We cannot warn you of every conceivable hazard that can arise in doing service and repair procedures. Only you can decide whether or not you should do a given task.

WARNING

Improper service or repairs can create an unsafe condition that can cause your customer or others to be seriously hurt or killed.

Carefully follow the procedures and precautions in this manual and other service material.

WARNING

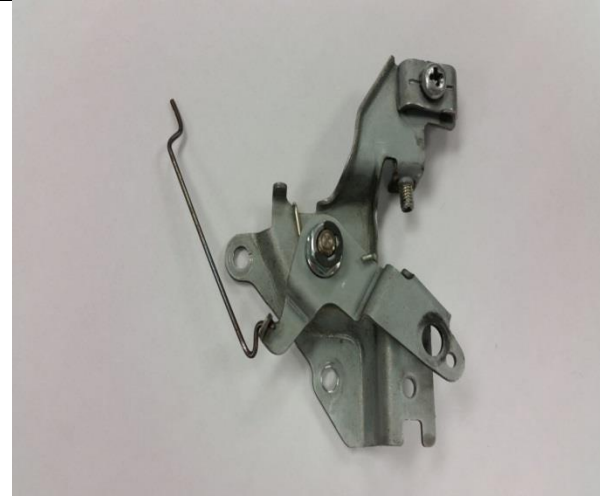
Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Carefully follow the procedures and precautions in this manual.

This manual details the steps necessary to install the HPD GXH50 engine kit on Honda's GXH50 engine. Disassembly and assembly procedures for Honda's GXH50 engine should be referenced in a Honda GXH50 service manual.

Throttle Bracket and Linkage Combination - Parts Needed	
 A photograph of a green metal throttle control assembly with various mounting points and a central pivot.	<p>CONTROL ASSY.(THROTTLE) 16500-ZM7-U00</p>
 A photograph of a black metal throttle linkage rod with an S-bend at one end. A red arrow points to the S-bend, which is labeled "S Bend" in a white box. <p>S Bend</p>	<p>THROTTLE LINKAGE ROD 17310-FC4Y-A00</p>

Throttle Bracket and Linkage Combination - Parts Needed



Take the Throttle Linkage Rod (17310-FC4Y-A00) and place the "S" bend end of the rod through the Throttle Bracket (16500-ZM7-U00).



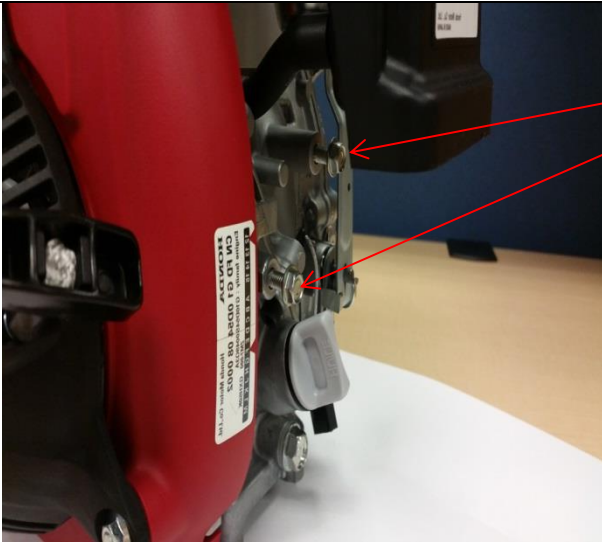
The rod placement should appear as shown in the image.



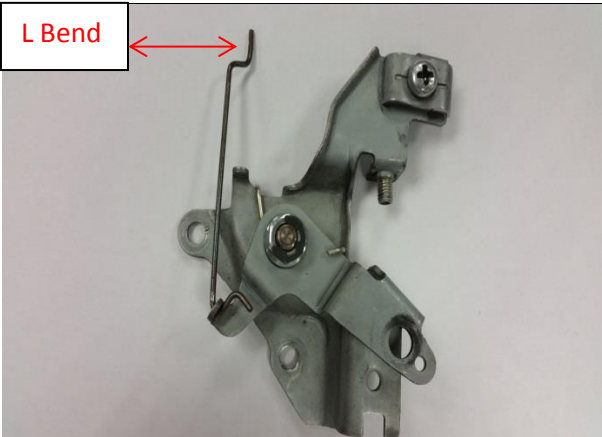
The final placement of the rod should rest just like the picture on the left, where the end of the "S" bend is tucked behind the Throttle Bracket.

Note: This is how it will be installed on the engine.

Throttle Bracket Installation to Engine



Remove the two 8mm bolts.



L Bend

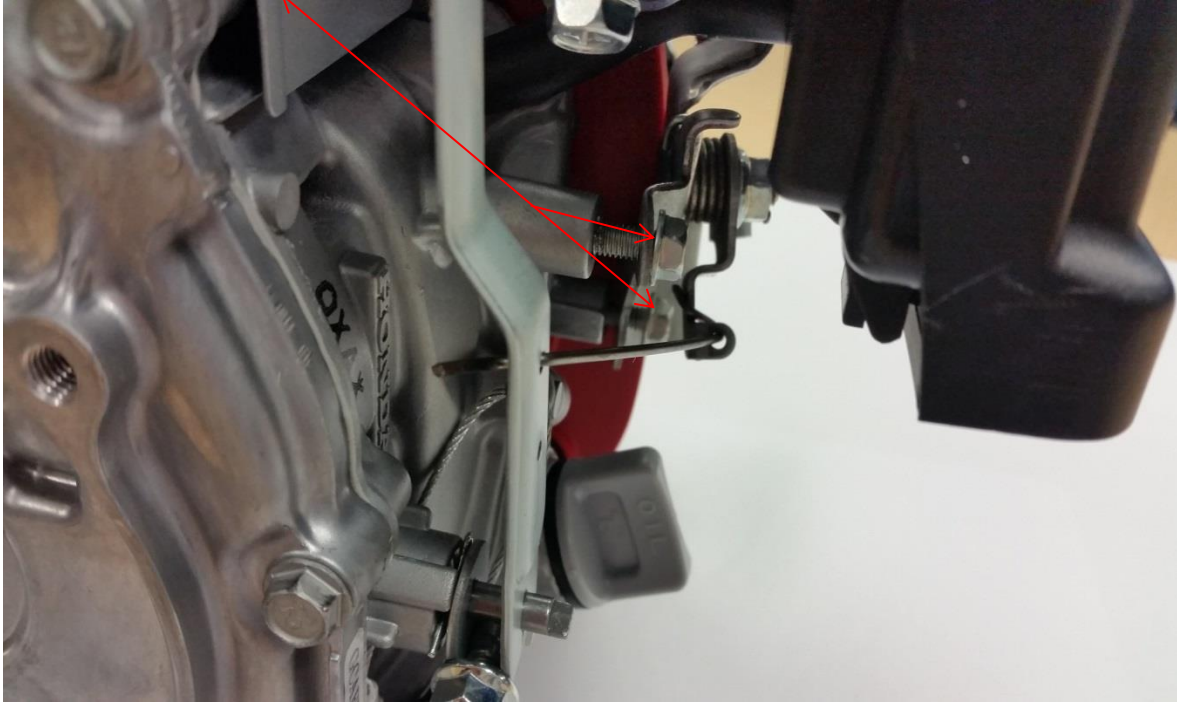
Install the Throttle Bracket where you previously removed the two 8mm bolts. In order for the whole unit to fit with ease, take the "L" bend of the rod and place it through the top hole on the engine's governor arm like in Picture "A" on page 6.



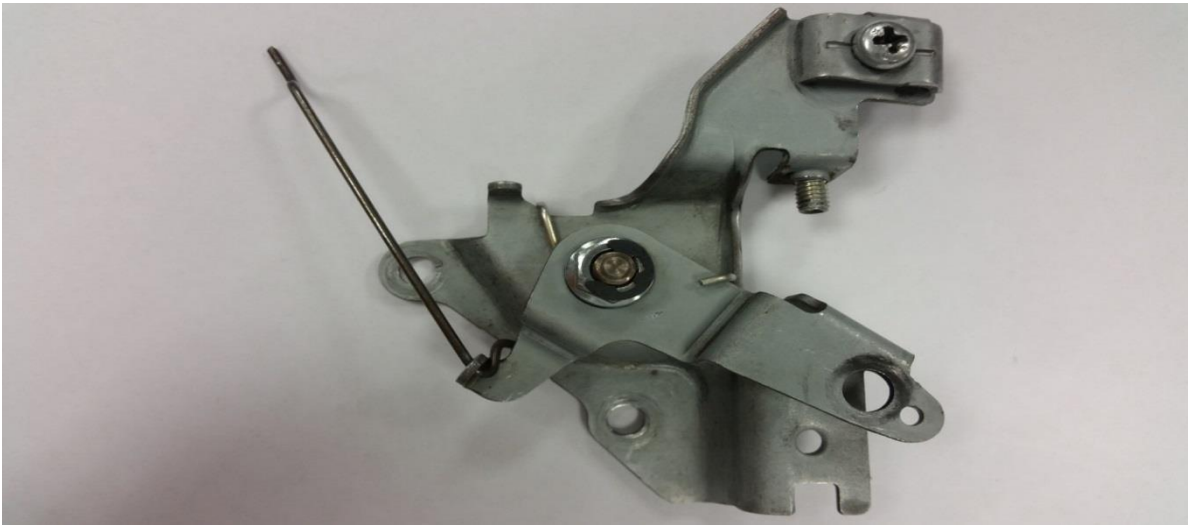
Compress the throttle to help align the 8mm bolt holes on the throttle bracket and on the engine.



1. Take the two 8mm bolts and start installing them with your fingers



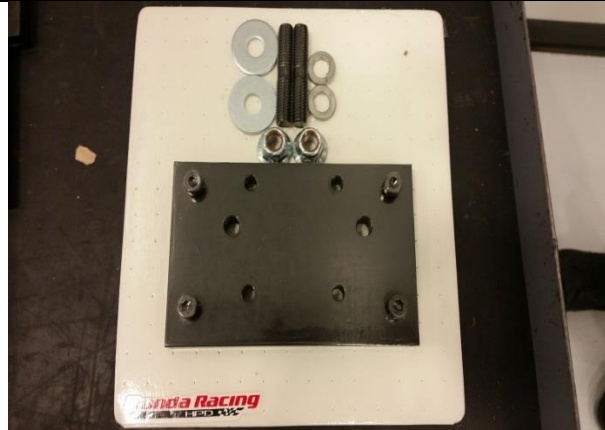
2. Before you completely tighten up the throttle bracket, make sure the "S" bend is tucked behind the throttle bracket.



3. The final installation should look like the photo below.



Engine Mounting Plate



The engine mounting plate can be mounted to the engine with the provided hardware. Please note that the exact placement of the plate on the bottom the engine will depend upon your chassis engine mount.



The multiple mounting holes will allow you to offset your engine as needed.

Clutch Installation



The Clutch Kit will come with the following items: 1 clutch, 1 key, 1 hat spacer, and 1 bolt.



Place the key in the crankshaft keyway.



Slip the clutch unit onto the crankshaft.

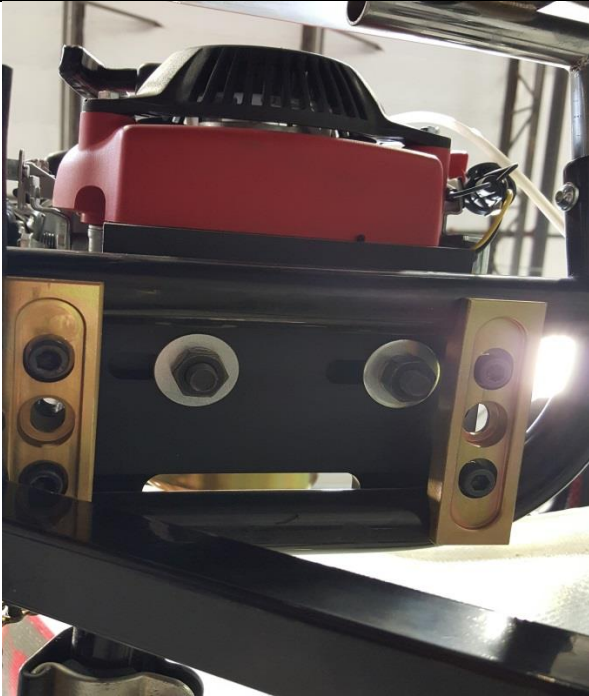


Insert the hat spacer into the clutch.



Insert the bolt into the hat spacer and torque the bolt to 14 foot-pounds.

Chassis Installation



Mount the engine to the chassis engine mount located on the chassis.



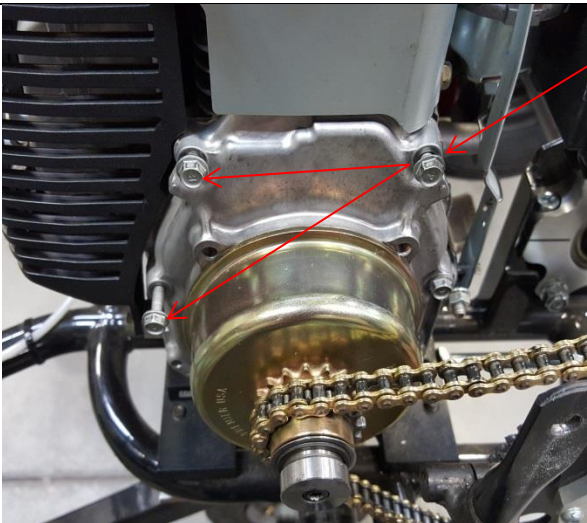
Make sure that the clutch and the rear sprocket are aligned so that the chain is not kinked in either direction from left to right.

Chain Guard Installation

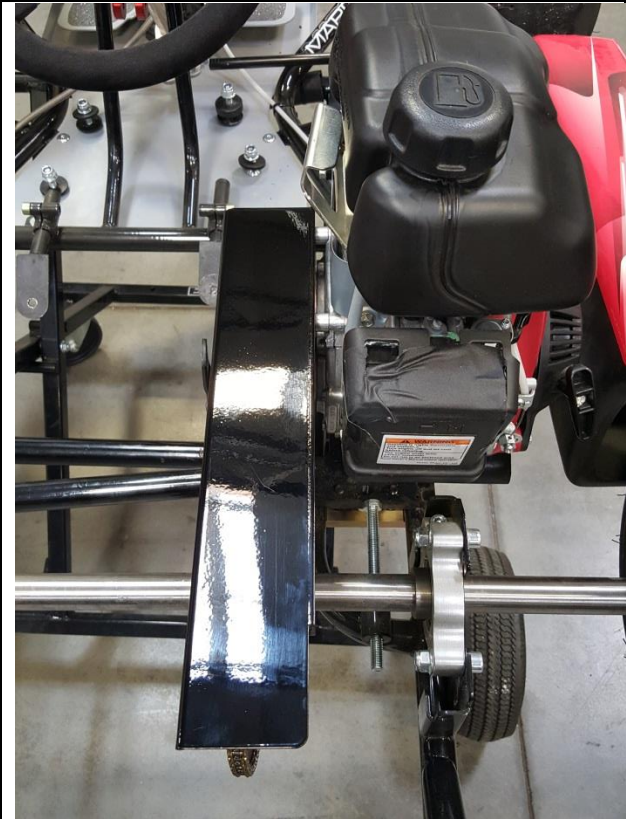


The Chain Guard kit will come with the following items: 1 chain guard, 3 spacers, and 3 bolts.

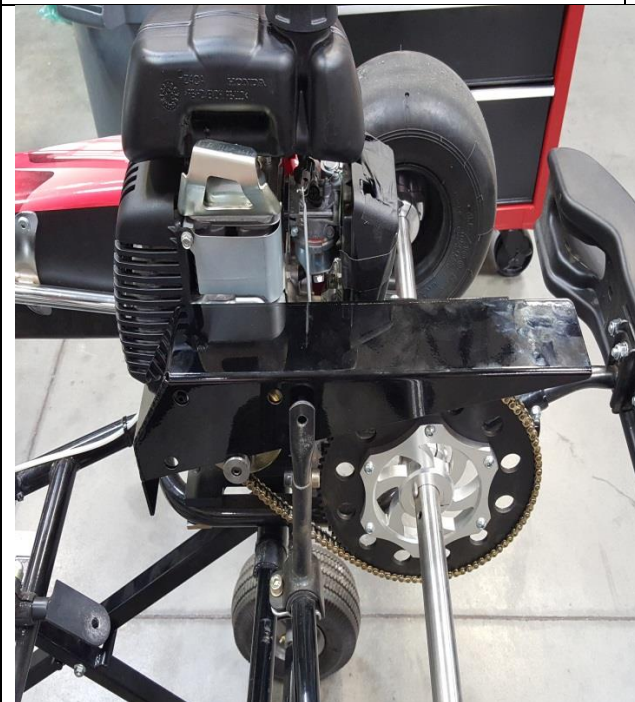
Please note that this chain guard may not fit your particular setup. We recommend test fitting the chain guard to see if it will fit in between the engine and the seat. You may need to acquire a different chain guard that fits your chassis/engine combination. The installed engine should not be operated without a chain guard in place.



Remove the 3 engine case bolts.



Use the three spacers to offset the chain guard from the engine.

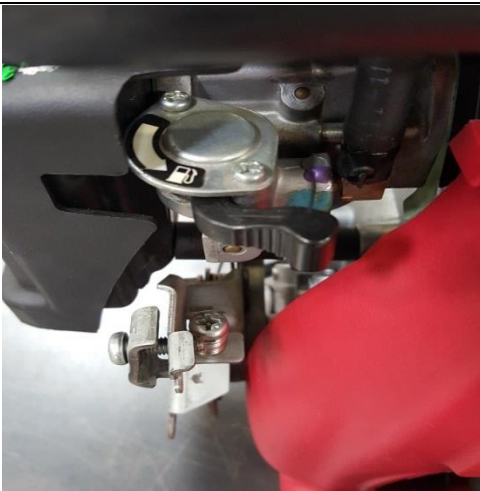


Use the three bolts supplied in the kit to mount the chain guard.

Starting Procedure



Place the ignition switch in the ON position.



Move to Fuel Valve Lever to the right to allow the flow of fuel from the gas tank.



Move the choke to right for initial starting.
Move the choke back to the left after the engine has started.

Frequently Asked Questions

Comment: "My engine lost 500-600 rpm"

Possible causes:

- Check the valve springs. If the chain ever came off and the engine over-revved, you may need to replace the springs in the head. If no over-rev condition has occurred, when was the last time the valve springs were changed? Valve springs typically last a half a season, sometimes longer.
- Check the carburetor for clogging/blockages. Carburetors have very small orifices for the fuel to pass through and they can get clogged easily, particularly if fuel is left in the engine for a long time. We recommend to sonically clean the carb.
- Check your oil level and condition. We recommend using Honda-branded oils.
- Check valve lash. Adjust per GX50 manual.
- Check fuel type. We recommend pump gas or VPMS93.

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