

Installation is a direct replacement of the factory equipment and shouldn't take much more than two hours to perform. These installation instructions will guide you through the original equipment removal and Billy Boat Exhaust installation procedure. The Billy Boat Exhaust system is a high-performance, emissions compliant muffler system that requires special installation care. It is recommended that a professional exhaust technician perform the installation.

1. Disconnect the battery negative terminal for safety and to reset the vehicle's on-board computer.
2. Secure the vehicle on a wheel lift.
3. Unbolt the flanges at the front of the existing exhaust system. Save the bolts and nuts as they will be reused. Unbolt the rear muffler hangers from the chassis. Remove the existing exhaust system.
4. Transfer the hangers off the original muffler to the new Billy Boat Exhaust muffler.
5. Install the front exhaust pipes by aligning the flanges and hangers of the new system. Reusing the existing bolts and nuts, hand tighten the flanges together. Align the muffler section onto the front pipes and the transferred hangers onto the chassis. Tighten the flanges bolts and nuts first then the supplied clamps making sure the exhaust is aligned.
6. It is normal for stainless steel to discolor slightly. To ensure a quality, lasting finish, thoroughly wipe down the entire Billy Boat Exhaust prior to starting.
7. Reconnect the battery negative terminal and start the vehicle. Listen for exhaust leaks and ensure there is no contact between the Billy Boat Exhaust system and any component of the vehicle.
8. Enjoy your Billy Boat Exhaust!

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#### Billy Boat Exhaust Safety

**SAFETY:** Appropriate disassembly, assembly methods and procedures are essential to ensure the personal safety of the individual performing the kit installation. Improper installation due to the failure to correctly follow these instructions could cause personal injury or death. Read each step of the installation manual carefully before starting the installation.

- Always wear safety glasses for eye protection.
- Place the ignition switch in the OFF position.
- Always apply the parking brake when working on the vehicle.
- Block the front and rear tire surfaces to prevent unexpected vehicle movement.
- Operate the engine only in well-ventilated areas to avoid exposure to carbon monoxide.
- Do not smoke or use flammable items near or around the fuel system.
- Use chemicals and cleaners only in well-ventilated areas.
- Batteries can produce explosive hydrogen gas which can cause personal injury. Do not allow flames, sparks or flammable sources to come near the battery.
- Keep hands and any other objects away from the radiator fan blades.
- Keep yourself and your clothing away from moving parts when the engine is running.
- Do not wear loose clothing or jewelry that can be caught in rotating or moving parts.

**VEHICLE SUPPORT WARNING:** Should the purchaser decide to install this exhaust product at home, be warned that car or light duty truck/van "bumper" jacks are intended for emergency use only. The use of frame contact jack stands in conjunction with a floor jack as main support is highly recommended to minimize accidental dropping of a vehicle while the installation proceeds. We recommend the use of a shop hoist if possible. Please use caution!



| <b>RPM</b> | <b>Stock Horsepower</b> | <b>BBE Horsepower</b> | <b>Gains</b> |
|------------|-------------------------|-----------------------|--------------|
| 3000       | 90                      | <b>92</b>             | +2           |
| 3500       | 105                     | <b>120</b>            | +15          |
| 4000       | 140                     | <b>155</b>            | +15          |
| 4500       | 170                     | <b>190</b>            | +20          |
| 5000       | 185                     | <b>195</b>            | +10          |
| 5500       | 210                     | <b>223</b>            | +13          |
| 6000       | 222                     | <b>238</b>            | +16          |

| <b>RPM</b> | <b>Stock Torque</b> | <b>BBE Torque</b> | <b>Gains</b> |
|------------|---------------------|-------------------|--------------|
| 3000       | 85                  | <b>100</b>        | +15          |
| 4000       | 134                 | <b>140</b>        | +6           |
| 4500       | 160                 | <b>179</b>        | +19          |
| 5000       | 172                 | <b>185</b>        | +13          |
| 5500       | 190                 | <b>210</b>        | +20          |
| 6000       | 185                 | <b>200</b>        | +15          |
| 6500       | 180                 | <b>195</b>        | +15          |