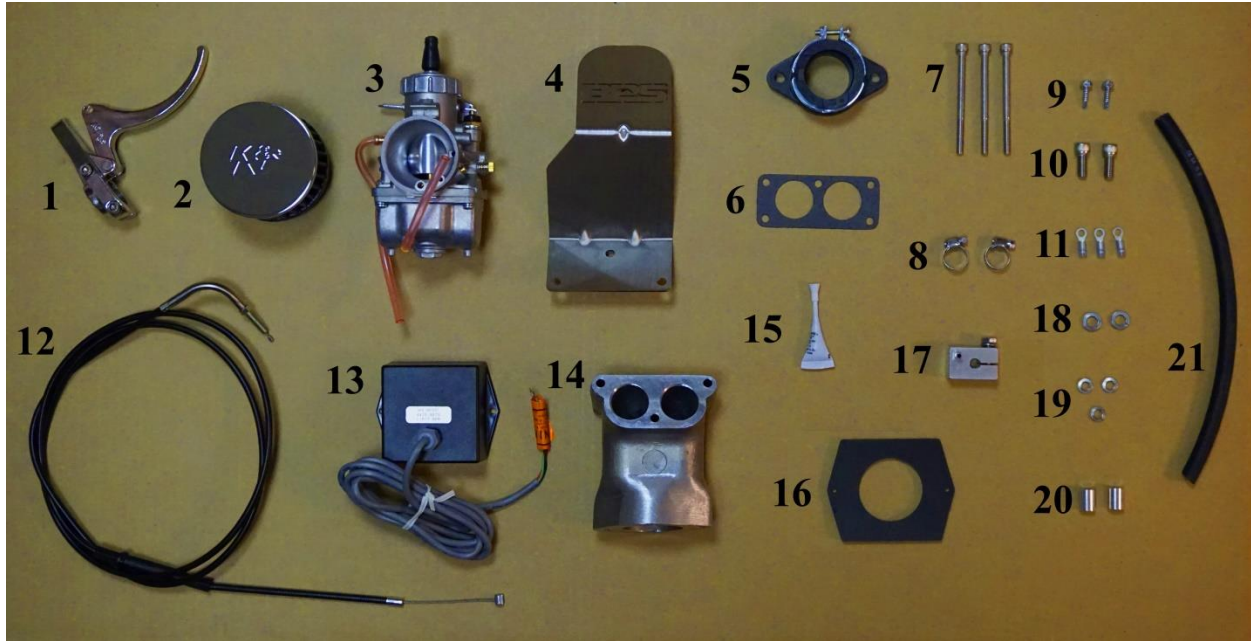


Stock Vanguard

34 mm Carburetor Kit

Installation Instructions



1. Throttle Cable Lever SS BPS (CKC-83)
2. Air Filter K&N RC 1900 (CKC-74)
3. Carburetor 34 mm (CKC-72)
- 3a. Needle & Seat 1.5 (CKC-56; inside carburetor)
- 3b. Jet 180 (CKC-55; inside carburetor)
- 3c. Jet 30 (CKC-57; inside carburetor)
4. Brush Guard (CKC-100)
5. Flange VM32 (CKC-44)
6. Intake Gasket 5-Hole (CKC-17)
7. Bolt 6 mm X 80 mm SKT CAP 3 ea (F-B52)
8. Hose Clamp 2 ea (A-45)
9. Screw 10-16 X 1 HEX TAP 2 ea (F-S19)
10. Bolt 5/16-18 X 3/4 SKT CAP 2 ea (F-B64)
11. Ring 10 16-14 GA 3 ea (EL-31)
12. Throttle Cable Single 34 Carb (CKC-36)
13. Rev Limiter Assembly 4470-4670 (CKC-46)
14. Intake Manifold 3-Hole X 2-Hole (CKC-59)
15. Threadlock 242 (A-210)
16. Rev Limiter Gasket (CKC-16)
17. Governor Lock 8 mm (CKC-26)
- 17a. Bolt 1/4 X 1 HEX CAP (F-B42)

- 17b. Washer 1/4 L/W (F-W29)
- 17c. Spring Pin 3/16 X 7/18 (F-M11)
18. Washer 5/16 L/W 2ea (F-W04)
19. Washer 1/4 L/W 3 ea (F-W29)
20. Brush Guard Spacer 2 ea (F-M08)
21. Fuel Hose 1/4 (A-43)

Tool required:
 Metric, US hex wrench set
 12 mm socket
 10 mm wrench
 7/16" wrench
 Flathead screwdriver
 Phillips screwdriver
 Side cutters
 Torque wrench
 Tape measure
 Pliers
 Wire Crimper
 Drill

Instructions – Read each section carefully before beginning. You are responsible for the correct use, installation and service of this carburetor. BPS is not liable for installation or any subsequent damage to the motor due to use, installation, jetting adjustment or maintenance of this carburetor.

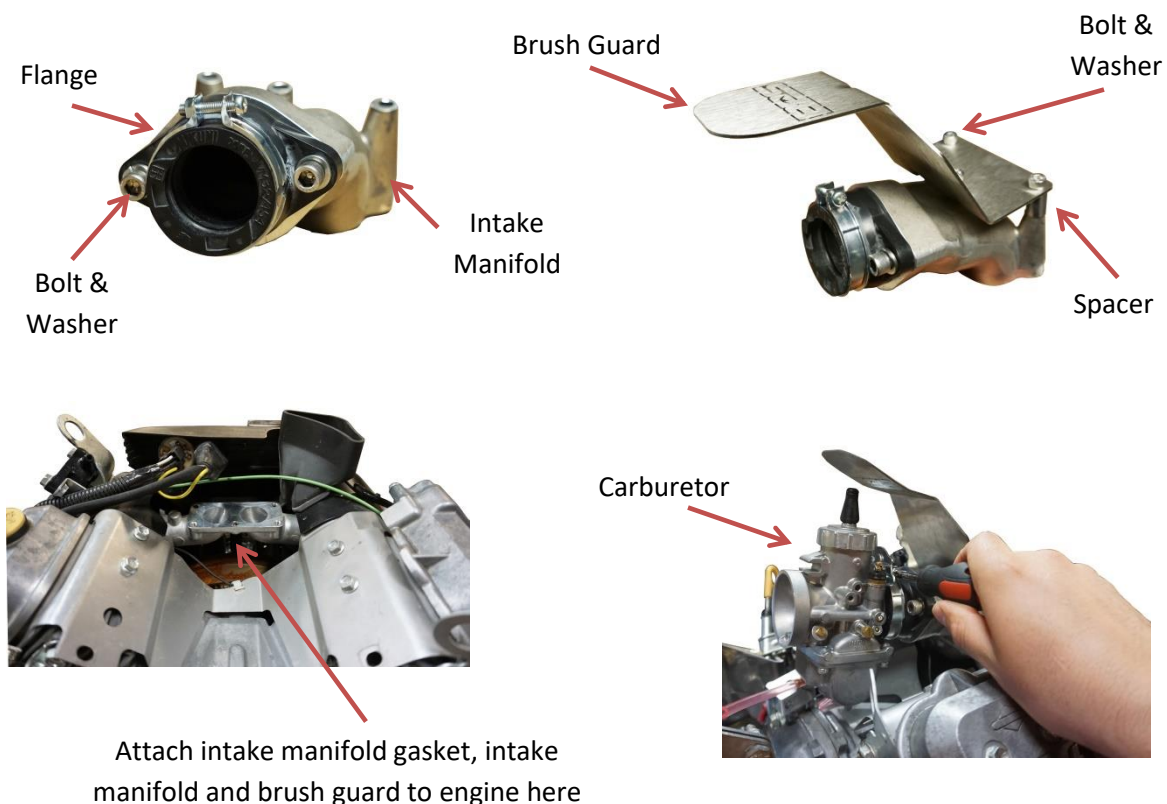
Step 1 – Remove Stock Engine Carburetor

1. Remove the air filter Assembly, carburetor linkage, carburetor cross brace and fuel line. Be sure to cover the intake with a rag to prevent debris from entering the engine.
2. Remove the bolts that hold on the rear governor, throttle assembly and governor arm.
3. Remove the rear governor, throttle assembly and governor arm.

Step 2 – Attach Intake Manifold, Brush Guard, and Carburetor

(Uses parts 3, 4, 5, 6, 7, 10, 14, 15, 18, 19, 20)

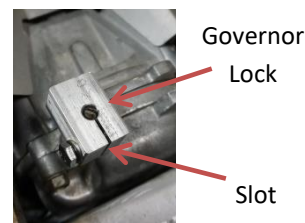
1. Attach the flange to the intake manifold using 2 ea 5/16” socket head bolts and 2 ea 5/16” lock washers. Be sure to apply threadlock to the bolts. The flange should be position as shown in the picture below.
2. Place the intake manifold gasket onto the engine.
3. Using the three 6 mm X 80 mm socket head bolts, three ¼” lock washers and the two brush guard spacers; attach the brush guard to the intake manifold. Be sure to apply threadlock to the bolts.
4. Screw manifold and brush guard into engine.
5. Place carburetor onto flange and tighten the clamp firmly.



Step 3 – Attach Governor Lock

(Uses part 17)

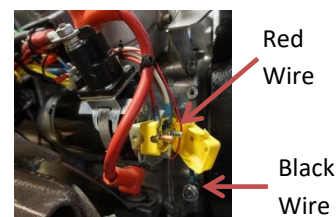
1. Place the governor lock onto the governor shaft with the slot facing the back of the engine with the spring pin pointing downward.
2. Place a flathead screwdriver into the top of the governor shaft. Twist the screwdriver counterclockwise while twisting the governor lock clockwise. Tighten the bolt to 25 in/lb. Once the governor lock is on, the governor shaft should not rotate.



Step 4 – Attach Rev Limiter

(Uses parts 9, 11, 13, 16)

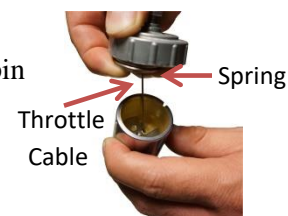
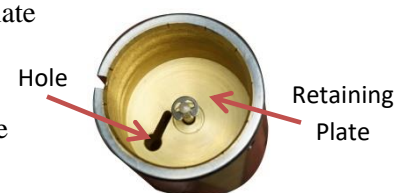
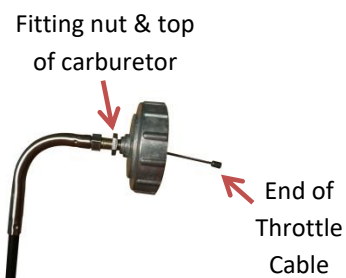
1. Attach rev limiter gasket to the back of the rev limiter.
2. Attach the back of the rev limiter to the inside of the boat near transom using self-tapping screws. Do not over tighten screws. Gasket should be uncompressed to help absorb vibrations.
3. Attach a ring connector to each of three rev limiter wires using wire crimpers.
4. Connect the red wire ring connector to the silver circuit breaker stud which is attached to the engine wire harness.
5. Connect the black wire ring connector to the bolt on the side of the engine. This black wire is a ground wire. Do not splice it into other black wires or connect it to the circuit breaker studs.
6. Connect the green wire ring to the brass bolt on the side of the engine.



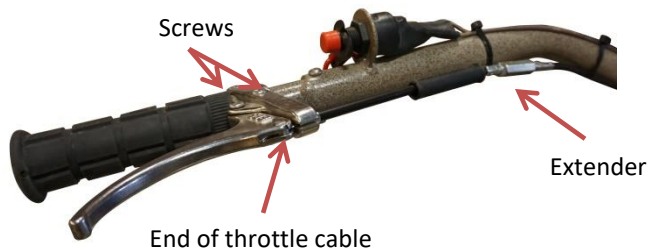
Step 5 – Attach Throttle Cable

(Uses parts 1, 12)

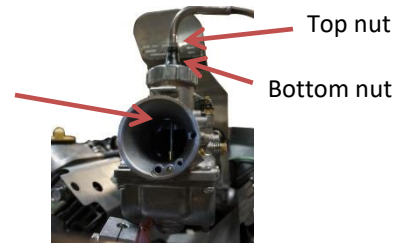
1. Remove rubber plug, brass fitting and fitting nut from top of carburetor. Discard plug and fitting.
2. Screw fitting onto threaded end of the throttle cable.
3. Remove cap from top of carburetor. Screw cap onto threaded end of the throttle cable.
4. Remove spring and barrel from the carburetor. Remove the retaining plate from the barrel.
5. Place spring onto throttle cable end.
6. Place the throttle cable end into the hole inside the barrel. Move throttle cable end to center of barrel to secure it.
7. Replace the retaining plate the bent portion of the retaining plate should face downward and locked into the slot inside the barrel.
8. Insert the barrel back into the carburetor by aligning the slot of the barrel with the pin inside the carburetor.
9. Remove the stock throttle cable from the handle with a hacksaw.
10. Route the new throttle cable so that it isn't positioned near the muffler, but can be attached to the end of the handle.



11. Place the throttle cable handle onto the handle tube by unscrewing the two screws from the handle, fastening the handle onto the tube, and replacing the screws.
12. Attach the end of the throttle cable to the throttle handle.
13. Remove the slack from the throttle cable by adjusting the cable extender.
14. Squeeze the throttle to make sure the barrel is flush with the top of the carburetor intake hole. If it isn't flush, adjust the top nut until it is, then tighten the bottom nut. If it is flush, tighten the bottom nut.



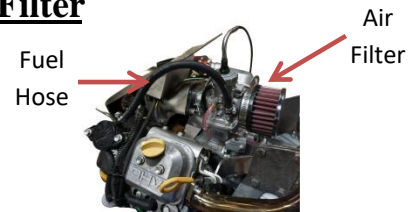
Barrel should be flush with top of hole



Step 6 – Attach Fuel Hose and Air Filter

(Uses parts 2, 8, 21)

1. Attach the fuel hose to the carburetor using the hose clamps.
2. Attach the air filter to the carburetor using the air filter clamp.



Step 7 – Test

1. If you have a fuel line bulb, pump fuel into the carb. If not, you can close the vent on the fuel tank and press in the center of the tank. This will push fuel into the carb.
2. Pull out the choke and start the engine. If the engine idle speed exceeds 1200 rpm, the throttle is too tight. To create some slack, adjust the cable tension adjuster.
3. Tighten the air screw, then unscrew it 1.5 turns to adjust the air mix.
4. Warm the engine 2-4 minutes, then set the idle to 1200 rpm using the idle adjust knob.

Tips, Maintenance and Warnings

1. All motors with a carburetor kit should have a working safety kill switch.
2. This carburetor may not meet California's air emission standards.
3. **Warranty:** You won't be provided Briggs & Stratton warranty service if this carburetor is installed at the time you request warranty service. There is no warranty on this product expressed or implied.
4. **Recommendations:** Replace your fuel filter, use Autolite AP3923 or APP3923 spark plugs, use synthetic oil, use at least octane 91, spray WD-40 onto the pre-filter a couple of times each season.
5. If your rev limiter fails, the safety default will shut down the engine and prevent it from starting. If this happens while you're out on the water, disconnect the green wire and start the engine so that you're able to get off the water. Replace the rev limiter immediately.
6. The rev limiter's purpose is to restrict a runaway engine, not to set your top engine speed. The rev limiter's life is shortened if you continually rev your engine to the rev limiter max. The rev limiter protects the engine from excessive speeds if you strike an object and the propeller leaves the water.
7. Always check the throttle tension and rev limiter before operating. Keep the throttle lever and throttle cable lubricated to prevent freezing.