
898235A01

BRAVO STERNDRIVE, INBOARD, AND TOW SPORTS FLUSH KIT

Notice

NOTICE
After completing installation, these instructions should be placed with the product for the owner's future use.


NOTICE
This document is written to aid our dealers, boatbuilders, and company service personnel in the proper installation or service of our products. Persons who are not familiar with these or similar products produced by Mercury Marine, and who have not been trained in the recommended servicing or installation procedures should have the work performed by an authorized Mercury Marine dealer technician. Improper installation or servicing of the Mercury product could result in damage to the product or personal injury to the installer or persons operating the product.

Models Covered	Serial Number Or Year
454, 7.4L	1988 and Newer
502, 8.2L	1988 and Newer
262, 4.3L	1988 and Newer
5.0L, 5.0 MPI, 350 MAG MPI, 350 MAG MPI Horizon	1988 and Newer
4.3L, 4.3 MPI	1988 and Newer

Parts List

Qty.	Description	Part Number
1	Flush mounting bracket	864263
1	Quick-connect plug	22-861405
1	Dust cap	861427
1	Quick-connect socket	22-861406
1	Water hose	32-42850-69
2	Hose clamp	54-815504212
2	Hose clamp	54-815504222
4	Hose clamp cover	19-807992-3
1	Drain fitting	22-862993
1	Flush operation decal	37-864346

Preparation

 WARNING
Avoid injury or death and power package damage from electrical shock, fire, or explosion. Always disconnect both battery cables from the battery before servicing the power package.

1. Disconnect both battery cables.

2. Before installing this flush kit, remove the boat from the water.

Flush Kit Mounting Bracket Installation—Remote Mounted

IMPORTANT: On all 4.3L models equipped with one-piece exhaust manifolds the flush kit mounting bracket and quick-connect fitting must be remotely mounted.

IMPORTANT: On all models equipped with stainless steel exhaust elbows the flush kit mounting bracket and quick-connect fitting must be remotely mounted.

Additional hardware and fasteners are required to remotely mount the flush kit mounting bracket and quick-connect fitting. Obtain the hardware and fasteners locally.

The following requirements must be met when remotely mounting the flush kit mounting bracket and quick-connect fitting.

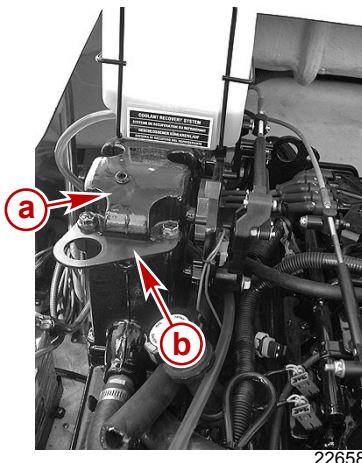
- The mounting location must position the the quick-connect fitting at the exhaust elbow height or higher.
 - The mounting location must ensure that there is clear access to the quick-connect fitting.
 - Follow all of the boat manufacturer's recommendations and requirements when drilling into the boat hull or transom.
 - Route the flush hose to ensure that there are no sharp bends or kinks in the hose.
 - Route the flush hose to ensure that the hose does not become chafed or pinched.
 - Route the flush hose to ensure that the hose does not come into contact with hot spots on the engine.
 - Route the flush hose to ensure that the hose does not come into contact with rotating or moving components.
1. Install the flush kit mounting bracket in the desired location using the necessary fasteners or hardware obtained locally.

Flush Kit Mounting Bracket Installation—Engine Mounted

IMPORTANT: To properly install the quick-connect flush kit the appropriate exhaust elbow or exhaust elbow and riser gasket kit for your specific exhaust system configuration must be ordered.

1. Remove the port exhaust elbow or exhaust elbow and riser if equipped. Retain all fasteners and components removed. Refer to the appropriate **Mercury MerCruiser Service Manual**.
2. Prepare and position the exhaust elbow or exhaust elbow and riser, if equipped, for installation onto the exhaust manifold. Refer to the appropriate **Mercury MerCruiser Service Manual**.

3. Position and secure the flush kit mounting bracket onto the front of the port exhaust elbow using the existing exhaust elbow fasteners as shown.



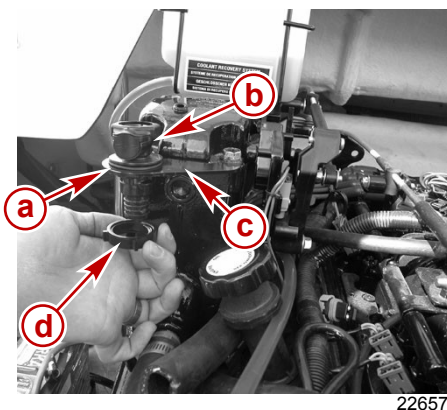
a - Port exhaust elbow

b - Flush kit mounting bracket

4. Complete the installation of the exhaust elbow or exhaust elbow and riser if equipped. Refer to the appropriate **Mercury MerCruiser Service Manual**.

Quick-Connect Socket Installation

1. Install the rubber washer and the quick-connect fitting onto the flush kit mounting bracket using the plastic nut. Tighten the flush kit mounting bracket securely.



a - Rubber washer

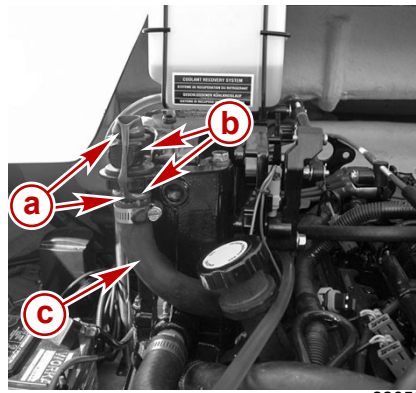
b - Quick-connect fitting

c - Flush kit mounting bracket

d - Plastic nut

2. Install the dust cap around the quick-connect fitting.
3. Install the flush hose onto the quick-connect fitting using a hose clamp. Tighten the hose clamp securely.

4. Install the dust cap into the quick-connect fitting as shown.



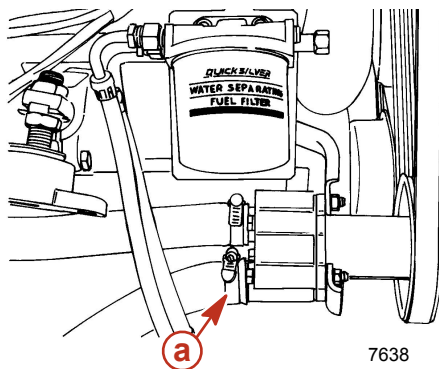
a - Dust cap

b - Quick-connect fitting

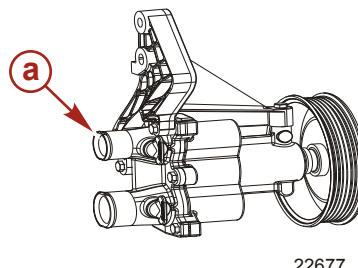
c - Flush hose

Seawater Pump Identification

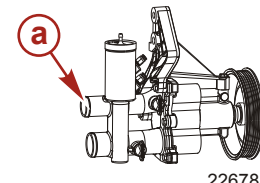
The Quick-Connect Flush Kit drain fitting must be installed in the seawater inlet hose. This section is designed to identify the type of seawater pump that is installed on your engine and the exact location of the seawater inlet on the seawater pump.



Composite seawater pump



Brass seawater pump without air-actuated drain

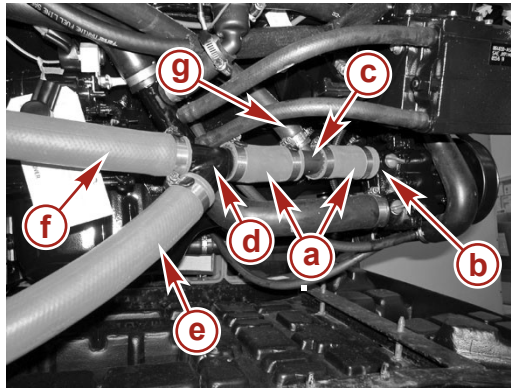


Brass seawater pump with air-actuated drain

a - Seawater inlet

Quick-Connect Flush Kit Installation—Through-Drive and Alternative Seawater Inlets

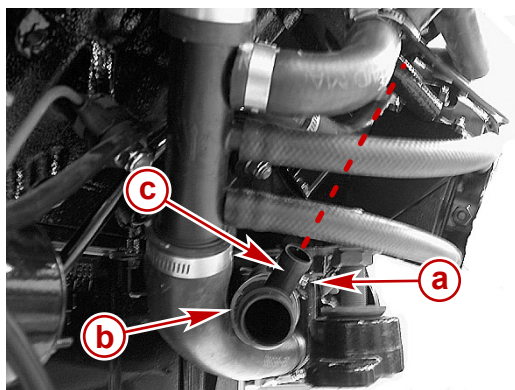
IMPORTANT: The following procedure applies to models equipped with through-drive and through-hull or through-transom seawater inlets.



22655

- | | |
|---|--|
| a - Sterndrive seawater inlet hose | e - Alternative seawater inlet hose |
| b - Seawater pump inlet | f - Sterndrive seawater inlet hose |
| c - Drain fitting | g - Flush hose |
| d - Y fitting | |

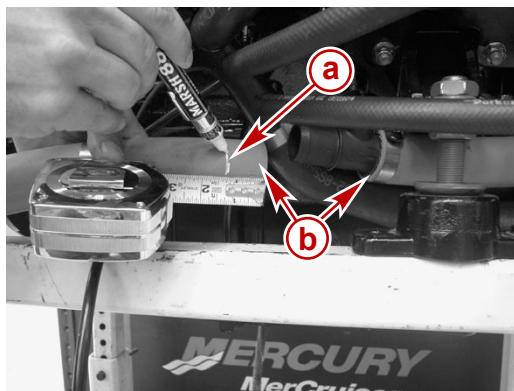
1. With the sterndrive seawater inlet hose connected to the seawater pump,
 - a. Measure 101 mm (4 in.) from the end of the sterndrive seawater inlet hose at the seawater pump inlet and cut the hose.
 - b. Apply soapy water to the inside of the sterndrive seawater inlet hose at the seawater inlet.
 - c. Using a hose clamp, install the drain fitting into the sterndrive seawater inlet hose. Angle the Y inlet of the drain fitting away from the seawater pump inlet and rotate it to approximately 1 o'clock, as viewed from the inlet side of the seawater pump. Tighten the hose clamp securely.



19162

- | | |
|---|----------------------------------|
| a - Hose clamp | c - Drain fitting Y inlet |
| b - Sterndrive seawater inlet hose | |

- d. Measure, cut, and discard 32 mm (1-1/4 in.) of the sterndrive seawater inlet hose.

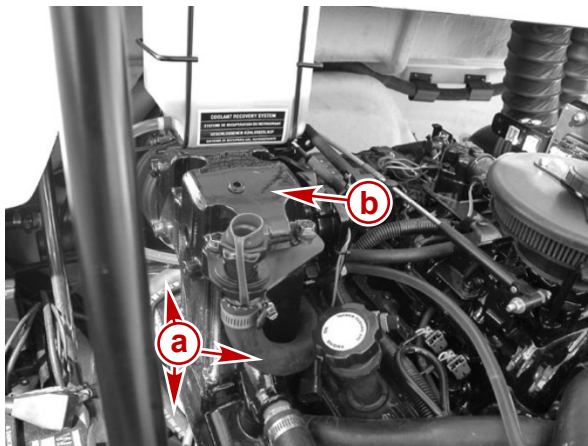


19163

a - 32 mm (1-1/4 in.) mark

b - Sterndrive seawater inlet hose

- e. Apply soapy water to the inside of the sterndrive seawater inlet hose.
- f. Using a hose clamp, install the sterndrive seawater inlet hose onto the drain fitting. Tighten the hose clamp securely.
- g. Route the flush hose to the inside of the exhaust elbow along the top of the valve cover to the transom end of the exhaust manifold and to the Y inlet of the drain fitting as shown.

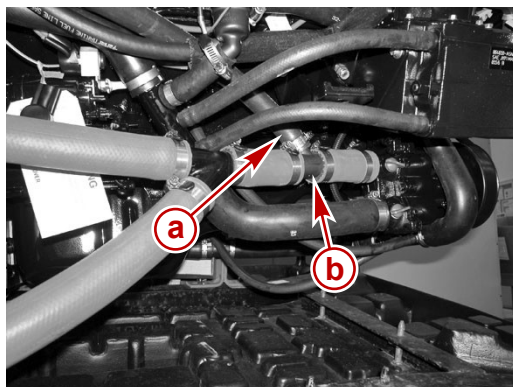


22653

a - Flush hose

b - Port exhaust elbow

- h. Cut the flush hose to the proper length and using a hose clamp, install the flush hose onto the drain fitting Y inlet. Tighten the hose clamp securely.



22654

a - Drain fitting**b** - Flush hose

2. Remove the paper backing from the flush operation decal and install the decal onto the top of the port exhaust elbow as shown. Ensure that the surface of the exhaust elbow is clean prior to installation.

⚠ CAUTION

Avoid electrical system damage. When installing the battery, be sure to connect the negative (-) battery cable to the negative (-) battery terminal and the positive (+) battery cable to the positive (+) battery terminal.

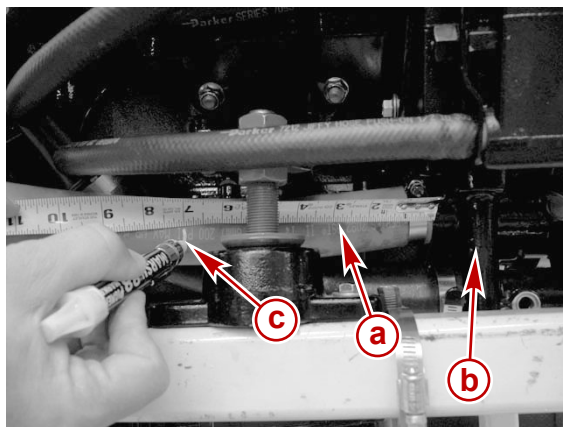
3. Connect the battery cables.
4. Upon first starting the engine, ensure that no leaks exist. If a leak exists, immediately stop the engine and correct the leak before proceeding.

Quick-Connect Flush Kit Installation—Bravo Sterndrive Inlet or Alternative Seawater Inlet

IMPORTANT: The following procedure applies to Bravo Sterndrive, Inboard and Tow Sports models equipped with a through-hull or through-transom seawater inlet.

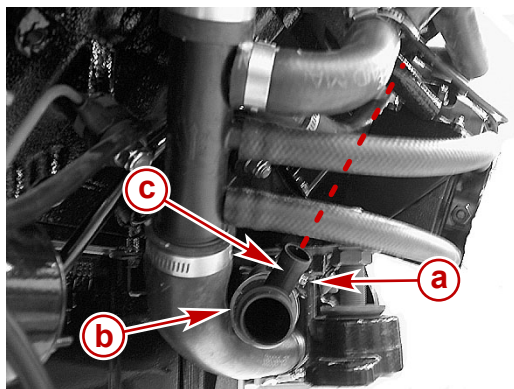
1. At the seawater pump inlet with the seawater pump inlet hose connected,

- a. Measure 178 mm (7 in.) from the end of the seawater pump inlet hose at the seawater pump inlet and cut the hose.



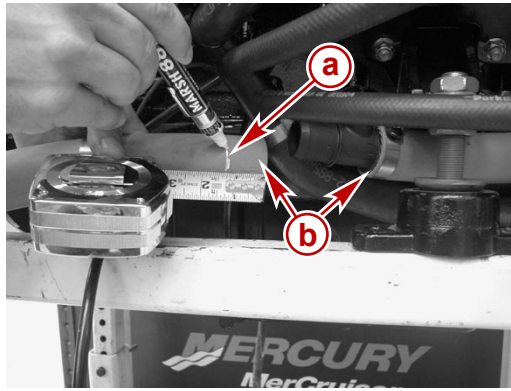
- a** - Seawater pump inlet hose **c** - 178 mm (7 in.) mark
b - Seawater pump inlet

- b. Apply soapy water to the inside of the seawater pump inlet hose at the seawater pump.
- c. Using a hose clamp, install the drain fitting into the seawater pump inlet hose. Angle the Y inlet of the drain fitting away from the seawater pump inlet and rotate it to approximately 1 o'clock, as viewed from the inlet side of the seawater pump. Tighten the hose clamp securely.



- a** - Hose clamp **c** - Drain fitting Y inlet
b - Seawater pump inlet hose

- d. Measure, cut, and discard 32 mm (1-1/4 in.) of the seawater pump inlet hose.

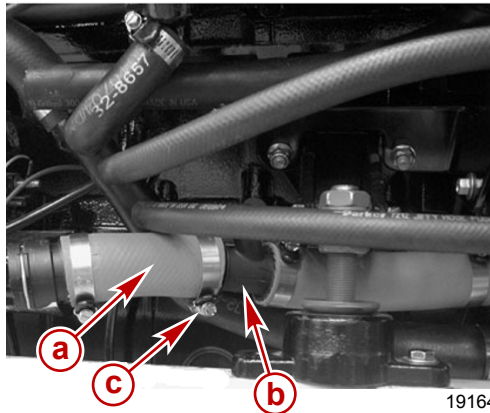


19163

a - 32 mm (1-1/4 in.) mark

b - Seawater pump inlet hose

- e. Apply soapy water to the inside of the seawater pump inlet hose.
f. Using a hose clamp, install the seawater pump inlet hose onto the drain fitting. Tighten the hose clamp securely.



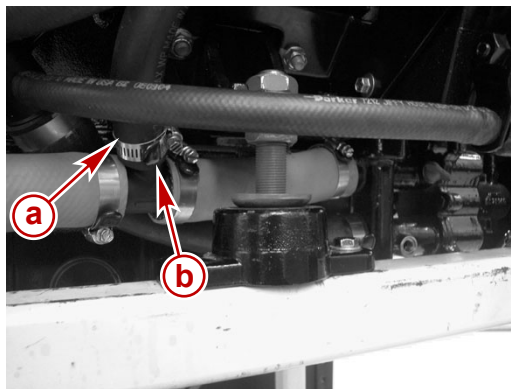
19164

a - Seawater pump inlet hose

c - Hose clamp

b - Drain fitting

- g. Using a hose clamp, install the flush hose onto the drain fitting Y inlet. Tighten the hose clamp securely.



19165

a - Flush hose

b - Drain fitting Y inlet

2. Remove the paper backing from the flush operation decal and install the decal onto the top of the port exhaust elbow as shown. Ensure that the surface of the exhaust elbow is clean prior to installation.

⚠ CAUTION

Avoid electrical system damage. When installing the battery, be sure to connect the negative (-) battery cable to the negative (-) battery terminal and the positive (+) battery cable to the positive (+) battery terminal.

3. Connect the battery cables.
4. Upon first starting the engine, ensure that no leaks exist. If a leak exists, immediately stop the engine and correct the leak before proceeding.

Flushing the Seawater System

Quick-Connect Flushing Procedure

The quick-connect flush attachment has been developed to provide a single-point method for conveniently and effectively flushing your power package. To find other methods for flushing the power package refer to the appropriate Mercury MerCruiser Operation, Maintenance and Warranty Manual.

IMPORTANT: Flushing the power package is most effective when performed with the boat and sterndrive out of the water.

IMPORTANT: Flushing is needed if the engine package has been operated in salt water, brackish water, mineral-laden water or polluted water. For best results flushing is recommended after each outing and before cold weather and extended storage.

The Boat out of the Water—Bravo Sterndrive with Through the Drive and Alternative Seawater Inlet

IMPORTANT: The following procedure applies to models equipped with through-drive and through-hull or through-transom seawater inlets.

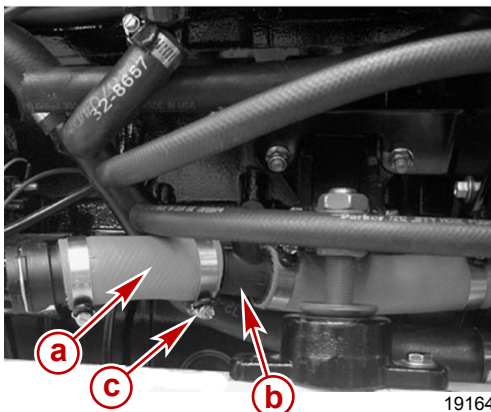
1. Lower the sterndrive unit to full down/in position.

⚠ WARNING

Contact with moving drive components and the propeller can cause personal injury or death. To avoid possible injury, remove the propeller and ensure that no people or animals are in the area of the drive unit while flushing.

2. Remove the propeller.
3. Close the seacock of the alternative seawater inlet hose.

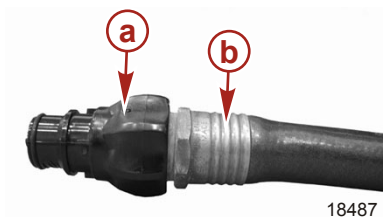
4. If the alternative seawater inlet hose is not equipped with a seacock, disconnect the seawater pump inlet hose from the seawater Y inlet fitting and plug the seawater pump inlet hose and the seawater Y inlet fitting.



a - Seawater pump inlet hose
b - Drain fitting

c - Hose clamp

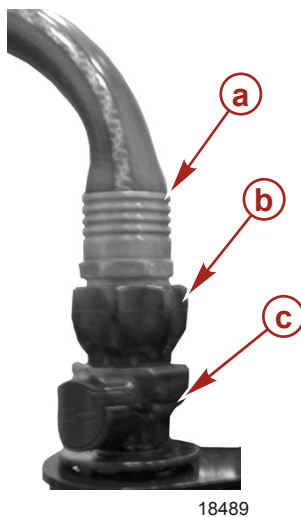
5. Attach the quick-connect fitting to the water supply hose.



a - Quick-connect fitting

b - Water supply hose

6. Connect the water supply hose to the water source.
7. Insert the quick-connect fitting of the water supply hose into the quick-connect flush socket on the engine. Ensure that the quick-connect fitting is completely seated into the quick-connect flush socket.



a - Water supply hose
b - Quick-connect fitting

c - Quick-connect flush socket

⚠ CAUTION

Do not let water run more than 15 seconds with engine not operating or too much flushing water will collect in the muffler.

8. With the sterndrive unit in the normal operating position, completely open the water source to provide maximum water supply.
9. Place the remote control in the neutral idle speed position and start the engine.

⚠ CAUTION

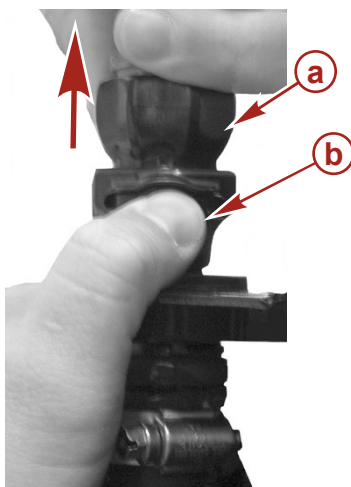
Avoid engine damage from overheating. If the engine is operated above 1400 RPM during flushing, suction created by the seawater pickup pump may collapse the flushing water hose, causing the engine to overheat.

10. Depress the throttle-only button and slowly advance the throttle until the engine reaches 1300 RPM (\pm 100 RPM).

⚠ CAUTION

Engine overheating can cause engine damage. To avoid, observe the water temperature gauge and ensure that the engine is operating in the normal range.

11. Observe the water temperature gauge to ensure that the engine is operating in the normal range.
12. Operate the engine with the sterndrive in neutral for a minimum of 10 minutes.
13. *For power packages operated in salt water, brackish water, mineral-laden water, or polluted water:* Continue to operate the engine until the discharge water is clear.
14. Slowly return throttle to idle speed position.
15. Stop the engine.
16. Shut off the supply water.
17. Disconnect the water supply hose and quick-connect fitting from the quick-connect flush socket on the engine by pressing the release button on the flush socket.



a - Quick-connect fitting

b - Flush socket release button

18. Remove the quick-connect fitting from the water hose. Retain the fitting for repeated use.

19. Insert the dust cover in the flush socket on the engine.



a - Dust cover

b - Flush socket

20. Connect the seawater pump inlet hose to the seawater Y inlet fitting. Tighten the hose clamps securely.

The Boat in the Water—Bravo Sterndrive with Through-Drive and Alternative Seawater Inlet

IMPORTANT: The following procedure applies to models equipped with through-drive and through-hull or through-transom seawater inlets.

1. Lower the sterndrive unit to full down/in position.

⚠ CAUTION

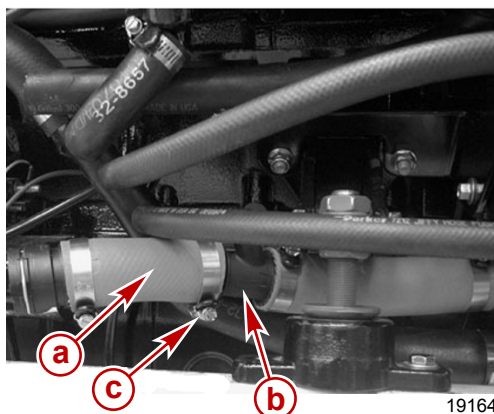
Excess water in the bilge can damage the engine or cause the boat to sink. Disconnecting the seawater inlet hose will cause water to enter the bilge. Close the seacock before removing the seawater inlet hose.

2. Close the seacock of the alternative seawater inlet hose.

⚠ CAUTION

Excess water in the bilge can damage the engine or cause the boat to sink. Disconnecting the seawater inlet hose will cause water to enter the bilge. Disconnect and immediately plug the seawater inlet hose to prevent water from siphoning into the engine or boat.

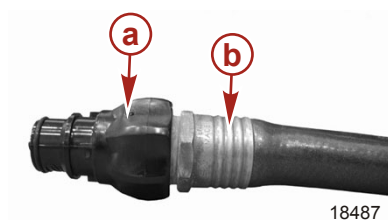
3. If the alternative seawater inlet hose is not equipped with a seacock, disconnect the seawater pump inlet hose from the seawater Y inlet fitting and plug the seawater pump inlet hose and the seawater Y inlet fitting.



a - Seawater pump inlet hose
b - Drain fitting

c - Hose clamp

4. Lower the sterndrive unit to full down/in position.
5. Attach the quick-connect fitting to the water supply hose.

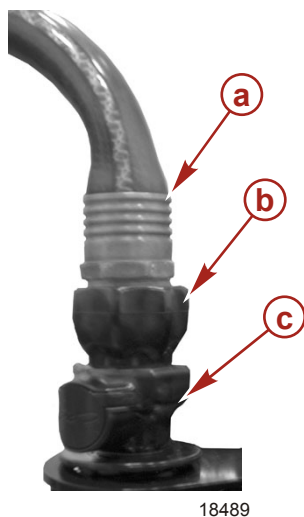


a - Quick-connect fitting

b - Water supply hose

6. Connect the water supply hose to the water source.

7. Insert the quick-connect fitting of the water supply hose into the quick-connect flush socket on the engine. Ensure that the quick-connect fitting is completely seated into the quick-connect flush socket.



a - Water supply hose

b - Quick-connect fitting

c - Quick-connect flush socket

⚠ CAUTION

Do not let water run more than 15 seconds with engine not operating or too much flushing water will collect in the muffler.

8. With the sterndrive unit in the normal operating position, completely open the water source to provide maximum water supply.
9. Place the remote control in the neutral idle speed position and start the engine.

⚠ CAUTION

Avoid engine damage from overheating. If the engine is operated above 1400 RPM during flushing, suction created by the seawater pickup pump may collapse the flushing water hose, causing the engine to overheat.

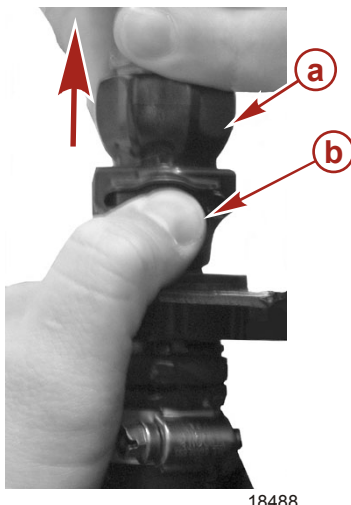
10. Depress the throttle only button and slowly advance the throttle until the engine reaches 1300 RPM (± 100 RPM).

⚠ CAUTION

Engine overheating can cause engine damage. To avoid, observe the water temperature gauge and ensure that the engine is operating in the normal range.

11. Observe the water temperature gauge to ensure that the engine is operating in the normal range.
12. Operate the engine with the sterndrive in neutral for a minimum of 10 minutes.
13. *For power packages operated in salt water, brackish water, mineral-laden water, or polluted water:* Continue to operate the engine until the discharge water is clear.
14. Slowly return the throttle to idle speed position.
15. Stop the engine.
16. Shut off the supply water.

17. Disconnect the water supply hose and quick-connect fitting from the quick-connect flush socket on the engine by pressing the release button on the flush socket.



a - Quick-connect fitting

b - Flush socket release button

18. Remove the quick-connect fitting from the water hose. Retain the fitting for repeated use.
19. Insert the dust cover in the flush socket on the engine.



a - Dust cover

b - Flush socket

20. Tag the ignition switch with an appropriate tag that requires the seacock to be opened or the seawater inlet hose to be reconnected prior to operating engine.

The Boat out of the Water—Bravo Sterndrive Seawater Inlet or Inboard and Tow Sports Models with Alternative Seawater Inlet

IMPORTANT: The quick-connect flush system is used in the following procedure to flush the power package on models with a single seawater inlet.

IMPORTANT: The following procedure applies to Bravo Sterndrive models with a through-drive seawater inlet, or Inboard, and Tow Sports models equipped with a through-hull or through-transom seawater inlet.

1. Lower the sterndrive unit to full down/in position.

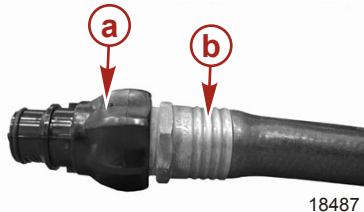
⚠ WARNING

Contact with moving drive components and the propeller can cause personal injury or death. To avoid possible injury, remove the propeller and ensure that no people or animals are in the area of the drive unit while flushing.

⚠ WARNING

When flushing, be certain the area around propeller is clear, and no one is standing nearby. To avoid possible injury, remove propeller.

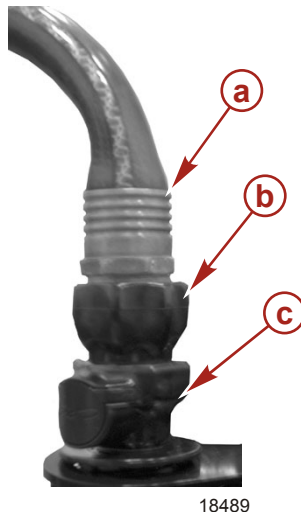
2. Remove the propeller.
3. On Bravo Sterndrive models equipped with a through-drive seawater inlet only, proceed to step 6.
4. On models equipped with an alternative seawater inlet, close the seacock of the alternative seawater inlet hose.
5. If the alternative seawater inlet hose is not equipped with a seacock, disconnect the seawater pump inlet hose from the seawater Y inlet fitting and plug the seawater pump inlet hose and the seawater Y inlet fitting.
6. Attach the quick-connect fitting to the water supply hose.



a - Quick-connect fitting

b - Water supply hose

7. Connect the water supply hose to the water source.
8. Insert the quick-connect fitting of the water supply hose into the quick-connect flush socket on the engine. Ensure that the quick-connect fitting is completely seated into the quick-connect flush socket.



a - Water supply hose

b - Quick-connect fitting

c - Quick-connect flush socket

⚠ CAUTION

Do not let water run more than 15 seconds with engine not operating or too much flushing water will collect in the muffler.

9. Completely open the water source to provide maximum water supply.
10. Place the remote control in the neutral idle speed position and start the engine.

⚠ CAUTION

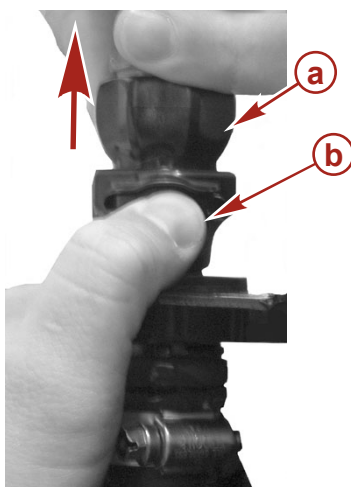
Avoid engine damage from overheating. If the engine is operated above 1400 RPM during flushing, suction created by the seawater pickup pump may collapse the flushing water hose, causing the engine to overheat.

11. Depress the throttle-only button and slowly advance the throttle until the engine reaches 1300 RPM (± 100 RPM).

⚠ CAUTION

Engine overheating can cause engine damage. To avoid, observe the water temperature gauge and ensure that the engine is operating in the normal range.

12. Observe the water temperature gauge to ensure that the engine is operating in the normal range.
13. Operate the engine in neutral for a minimum of 10 minutes.
14. *For power packages operated in salt water, brackish water, mineral-laden water, or polluted water:* Continue to operate the engine until the discharge water is clear.
15. Slowly return throttle to idle speed position.
16. Stop the engine.
17. Shut off the water supply.
18. Disconnect the water supply hose and quick-connect fitting from the quick-connect flush socket on the engine by pressing the release button on the flush socket.



a - Quick-connect fitting

b - Flush socket release button

19. Remove the quick-connect fitting from the water hose. Retain the fitting for repeated use.

20. Insert the dust cover in the flush socket on the engine.



a - Dust cover

b - Flush socket

21. Install the propeller.

The Boat in the Water—Bravo Sterndrive Seawater Inlet or Inboard and Tow Sports Models with Alternative Seawater Inlet

IMPORTANT: The following procedure applies to Bravo Sterndrive models with a through-drive seawater inlet, or Inboard, and Tow Sports models equipped with a through-hull or through-transom seawater inlet.

1. Lower the sterndrive to the full down in position.

⚠ CAUTION

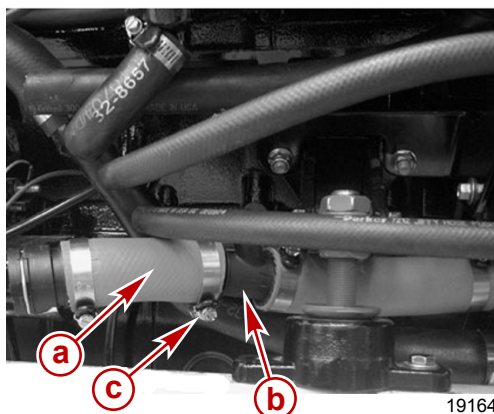
Excess water in the bilge can damage the engine or cause the boat to sink. Disconnecting the seawater inlet hose will cause water to enter the bilge. Close the seacock before removing the seawater inlet hose.

2. Close the seacock if equipped.

⚠ CAUTION

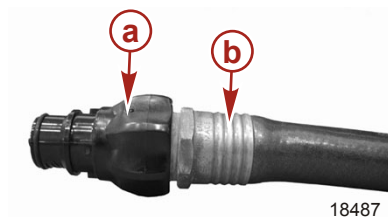
Excess water in the bilge can damage the engine or cause the boat to sink. Disconnecting the seawater inlet hose will cause water to enter the bilge. Disconnect and immediately plug the seawater inlet hose to prevent water from siphoning into the engine or boat.

3. If not equipped with a seacock, disconnect the seawater pump inlet hose from the transom side of the drain fitting and plug the seawater pump inlet hose and the drain fitting.



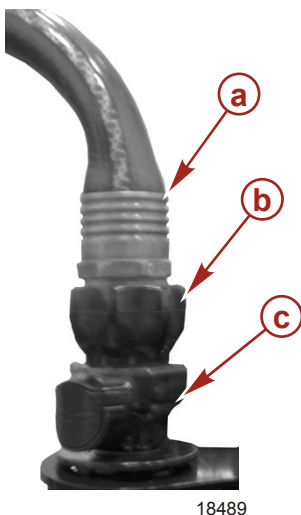
a - Seawater pump inlet hose **c** - Hose clamp
b - Drain fitting

4. Attach the quick-connect fitting to the water supply hose.



a - Quick-connect fitting **b** - Water supply hose

5. Connect the water supply hose to the water source.
6. Insert the quick-connect fitting of the water supply hose into the quick-connect flush socket on the engine. Ensure that the quick-connect fitting is completely seated into the quick-connect flush socket.



a - Water supply hose **c** - Quick-connect flush socket
b - Quick-connect fitting

⚠ CAUTION

Do not let water run more than 15 seconds with engine not operating or too much flushing water will collect in the muffler.

7. Completely open the water source to provide maximum water supply.
8. Place the remote control in the neutral idle speed position and start the engine.

⚠ CAUTION

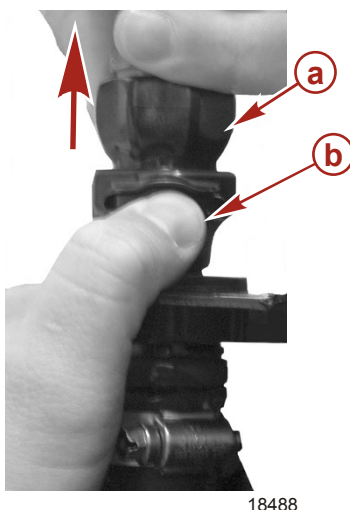
Avoid engine damage from overheating. If the engine is operated above 1400 RPM during flushing, suction created by the seawater pickup pump may collapse the flushing water hose, causing the engine to overheat.

9. Depress the throttle only button and slowly advance the throttle until the engine reaches 1300 RPM (± 100 RPM).

⚠ CAUTION

Engine overheating can cause engine damage. To avoid, observe the water temperature gauge and ensure that the engine is operating in the normal range.

10. Observe the water temperature gauge to ensure that the engine is operating in the normal range.
11. Operate the engine in neutral for a minimum of 10 minutes.
12. *For power packages operated in salt water, brackish water, mineral-laden water, or polluted water:* Continue to operate the engine until the discharge water is clear.
13. Slowly return the throttle to idle speed position.
14. Stop the engine.
15. Shut off the water supply.
16. Disconnect the water supply hose and quick-connect fitting from the quick-connect flush socket on the engine by pressing the release button on the flush socket.



a - Quick-connect fitting

b - Flush socket release button

17. Remove the quick-connect fitting from the water hose. Retain the fitting for repeated use.

18. Insert the dust cover in the flush socket on the engine.



a - Dust cover

b - Flush socket

19. Tag the ignition switch with an appropriate tag requiring the seacock to be opened or the seawater inlet hose to be reconnected prior to operating engine.