

EXHAUST RISER KITS FOR 8.2 ECT ENGINES WITH SINGLE-CATALYST EXHAUST MANIFOLDS MERCUISER STERNDRIVE AND INBOARD

IMPORTANT: This document guides our dealers, boatbuilders, and company service personnel in the proper installation or service of our products. If you have not been trained in the recommended servicing or installation procedures for these or similar Mercury Marine products, 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 those installing or operating the product.

NOTE: After completing the installation, place these instructions with the product for the owner's future use.

Kits Covered

Kit Number	Riser Height
8M0057574	51 mm (2 in.)
8M0057575	102 mm (4 in.)
8M0057576	153 mm (6 in.)

Models Covered

All single-catalyst models listed that are equipped with emissions control

Engines	Serial Number
8.2 MAG	Serial number not available at time of publication
8.2 MAG H.O.	Serial number not available at time of publication
8.2 Horizon	Serial number not available at time of publication
8.2 H.O.	Serial number not available at time of publication

Intermediate Exhaust Elbow Kit for Through-the-Propeller Exhaust Models

IMPORTANT: A standard sterndrive application with through-the-propeller exhaust requires an intermediate exhaust elbow kit. Refer to the following table for your specific application.

Riser Extension Height	Exhaust Elbow Riser Kit	Required Intermediate Exhaust Elbow Kit (Order Separately)
51 mm (2 in.)	8M0057574	8M0057571
102 mm (4 in.)	8M0057575	8M0057572
153 mm (6 in.)	8M0057576	8M0057573

Parts List

51 mm (2 in.) Riser Elbow Kit, P/N 8M0057574

Qty.	Description	Part Number
1	Elbow—port exhaust assembly, 51 mm (2 in.)	8M0062281
1	Elbow—starboard exhaust assembly, 51 mm (2 in.)	8M0062282
2	Gasket—exhaust elbow	8M0054712

102 mm (4 in.) Riser Elbow Kit, P/N 8M0057575

Qty.	Description	Part Number
1	Elbow—port exhaust assembly, 102 mm (4 in.)	8M0063946
1	Elbow—starboard exhaust assembly, 102 mm (4 in.)	8M0063947
2	Gasket—exhaust elbow	8M0054712

153 mm (6 in.) Riser Elbow Kit, P/N 8M0057576

Qty.	Description	Part Number
2	Elbow—exhaust assembly, 153 mm (6 in.)	8M0063920
2	Gasket—exhaust elbow	8M0054712

Exhaust Elbow Removal

NOTE: Perform the steps for one side, then repeat for the other side.

1. Turn off the engine and allow it to cool.

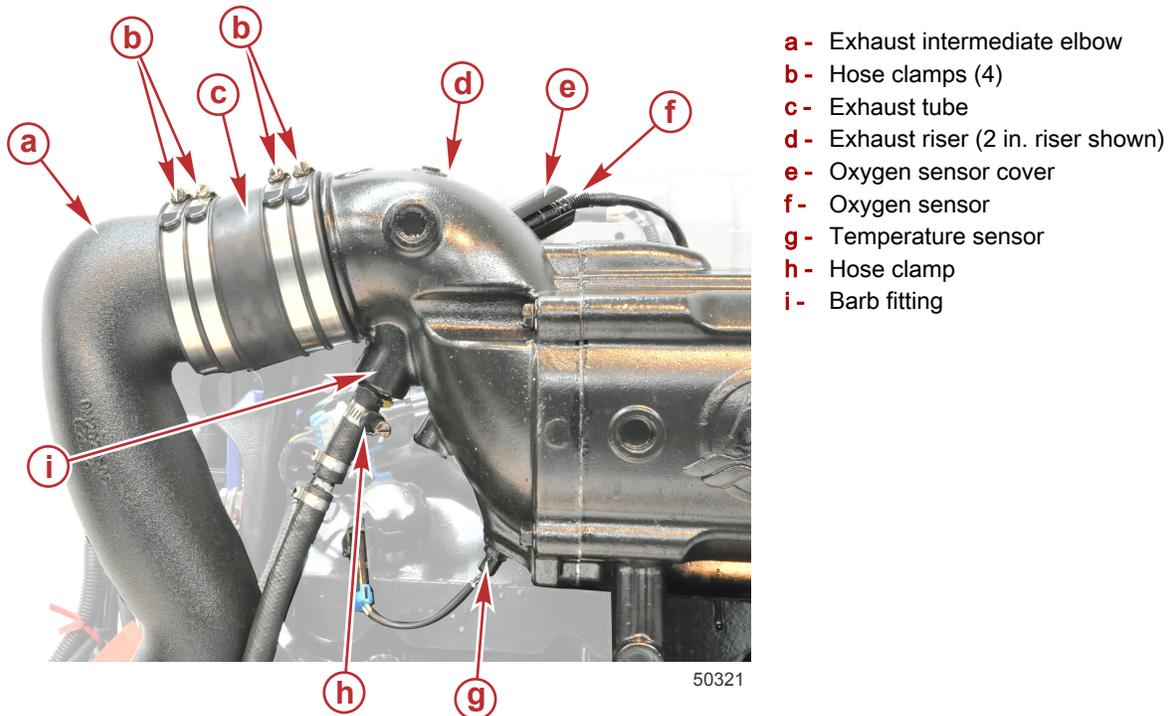
⚠ WARNING

Performing service or maintenance without first disconnecting the battery can cause product damage, personal injury, or death due to fire, explosion, electrical shock, or unexpected engine starting. Always disconnect the battery cables from the battery before maintaining, servicing, installing, or removing engine or drive components.

⚠ CAUTION

Disconnecting or connecting the battery cables in the incorrect order can cause injury from electrical shock or can damage the electrical system. Always disconnect the negative (-) battery cable first and connect it last.

2. Disconnect the negative and positive battery cables from the battery.
3. Drain the seawater section of the engine. Refer to the appropriate Mercury MerCruiser service manual.
4. Note the locations and connections of the hoses and fittings for assembly of the new riser.

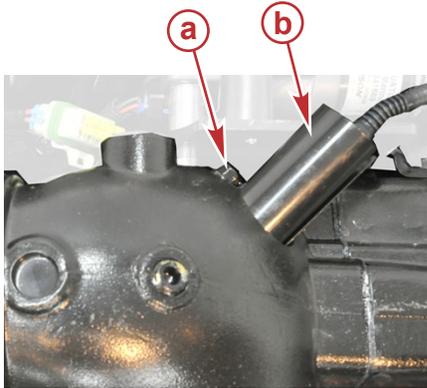


5. Remove the exhaust intermediate elbow, if equipped. Retain the hose clamps.
6. Disconnect the engine exhaust tubes. Retain the hose clamps.
7. Disconnect the water hose from the riser. Retain the hose clamp.

⚠ CAUTION

A hot oxygen sensor can cause burns. Do not touch the sensor without first allowing it to cool. Always allow engine components time to reach a safe temperature before installing or servicing engine or drive components.

8. Remove and retain the oxygen sensor, cover, and cover screw.



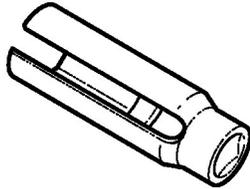
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- a** - Oxygen sensor cover retaining screw
- b** - Oxygen sensor cover

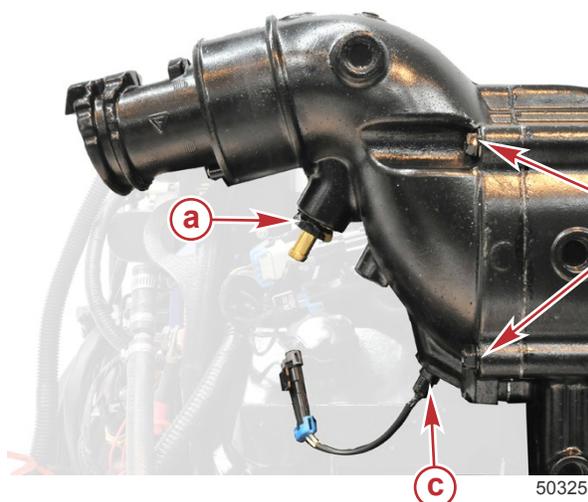


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- a** - Oxygen sensor

<p>SPX Service Solutions Oxygen Sensor Socket</p>	<p>KN-46577</p>
 <p>32314</p>	<p>SPX Service Solutions Oxygen Sensor Socket</p>

9. Remove and retain the temperature sensor.



- a - Hose barb fitting
- b - Riser retaining screws (4)
- c - Temperature sensor

10. Remove and retain the four screws securing the exhaust elbow.

11. Remove the exhaust riser.

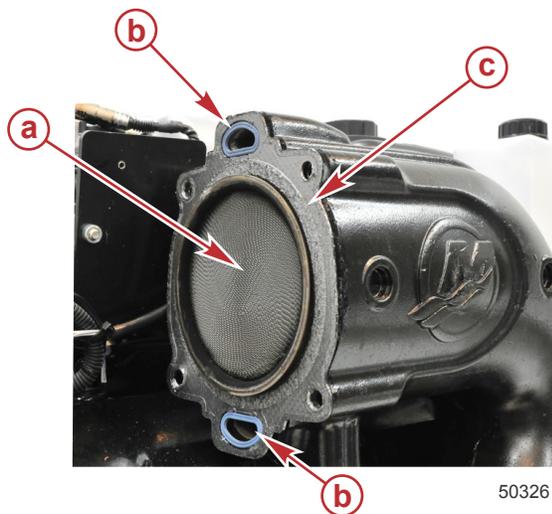
IMPORTANT: Remove the exhaust elbow carefully to ensure that the catalyst does not fall from the manifold.

NOTICE

Exposing the catalyst to foreign materials such as silicone, oils, or fiberglass can chemically alter the precious metal coating of the catalyst and compromise its ability to convert exhaust gases. Handle catalyst components in a clean environment only.

IMPORTANT: Foreign material on hot catalysts can damage the catalysts. Prevent material from falling into the exhaust manifold. If material does fall into the exhaust manifold, remove the material carefully to avoid damage.

12. Remove the catalyst and store it in a clean, dry place.



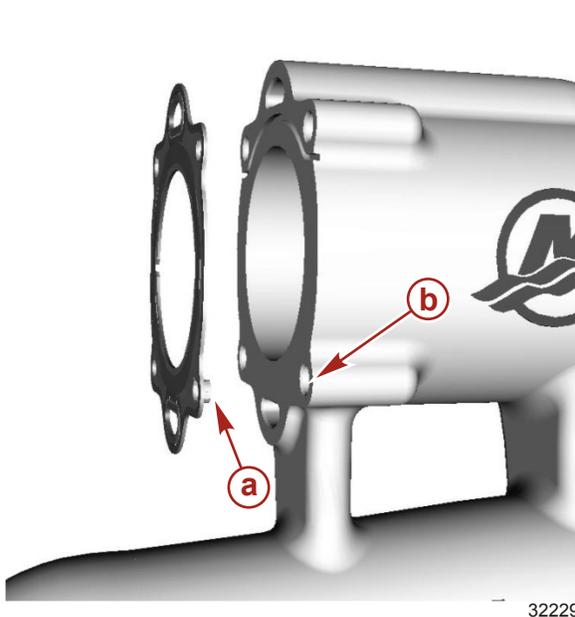
- a - Catalyst
- b - Water port
- c - Gasket

13. Remove and discard the old gaskets. Clean the mating surfaces on the new risers and the existing exhaust manifolds.

Riser Installation

Installation of the Catalyst and Riser

1. Install the exhaust elbow gasket onto the exhaust manifold. Ensure that the exhaust gasket dowels are seated in the appropriate holes on the exhaust manifold mating surface

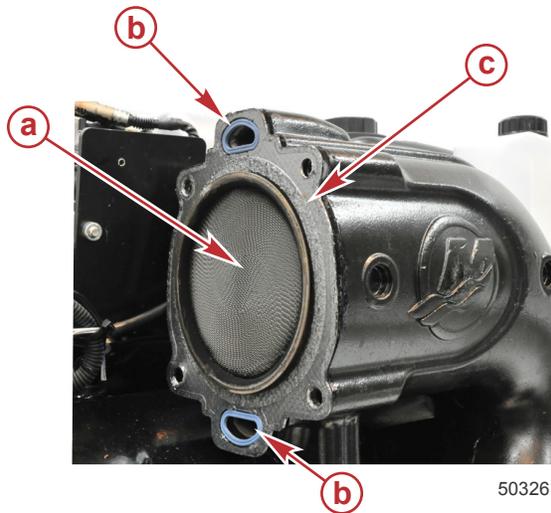


Exhaust elbow gasket

a - Dowel

b - Hole

2. Insert the catalyst through the gasket and into the exhaust manifold. A slight resistance while inserting the catalyst is normal and expected.
3. Ensure that the water port openings on the exhaust manifold align with the water ports on the exhaust manifold.



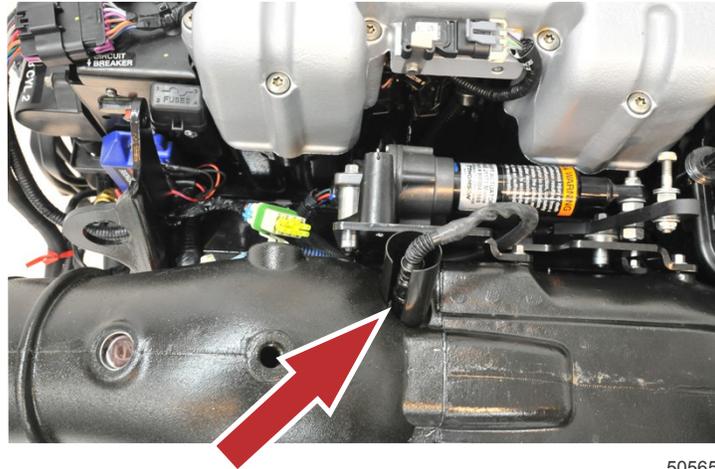
a - Catalyst

b - Water port

c - Gasket

NOTE: The 51 mm (2 in.) and 102 mm (4 in.) risers are configured for port and starboard specific application. The riser must be installed so the threaded hole for the oxygen sensor is on the side closest to the engine.

- Align the appropriate port or starboard riser with the screw holes. On risers with side-specific oxygen sensor holes, ensure that the oxygen sensor hole is on the side closest to the engine.



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Oxygen sensors are located on the side of the risers closest to the engine

- Starting with the top two screws, install the four exhaust manifold screws until hand tight.
- Tighten the screws to the specified torque in the sequence shown. Two passes are required.



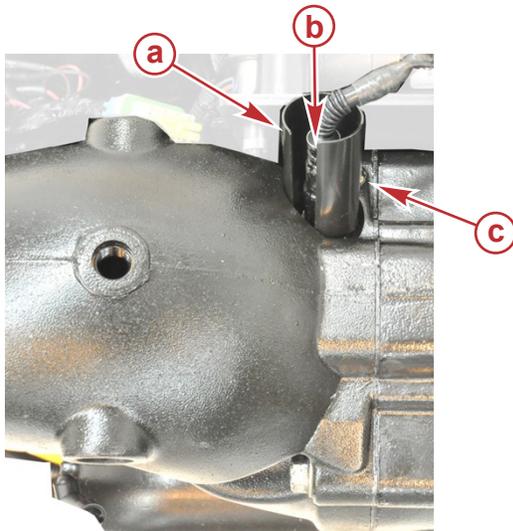
Riser shown with components removed for clarity

Description		Nm	lb-in.	lb-ft
Exhaust manifold screws	First	27	–	20
	Final	46	–	34

- Install the oxygen sensor and tighten to the specified torque.

Description	Nm	lb-in.	lb-ft
Oxygen sensor	50	–	37

- Install the oxygen sensor cover and screw. Tighten the screw to the specified torque.



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- a** - Oxygen sensor cover
- b** - Oxygen sensor and harness
- c** - Oxygen sensor cover retaining screw (partially obscured)

Description	Nm	lb-in.	lb-ft
Oxygen sensor cover retaining screw	14	124	–

- Connect the oxygen sensor to the harness. Secure the harness with the appropriate retainer.
- Inspect the retained temperature sensor and replace it if it is damaged.
- Install the temperature sensor and tighten to the specified torque.

Description	Nm	lb-in.	lb-ft
Temperature sensor	16	142	–

- Attach the engine wire connector to the temperature sensor. Secure the harness with the appropriate retainer.
- Attach the engine water hoses to the exhaust risers, and tighten the hose clamps to the specified torque.

Description	Nm	lb-in.	lb-ft
Hose clamps	4	35	–

Completing the Installation

- Install the exhaust tube onto the exhaust riser and the new intermediate exhaust elbow.
- Tighten both hose clamps on each joint to the specified torque.
- Install the exhaust bellows onto the exhaust pipe and the new intermediate exhaust elbow.
- Tighten both hose clamps on each joint to the specified torque.

Description	Nm	lb-in.	lb-ft
Hose clamps	4	35	–

- Supply adequate cooling water, start the engine, and verify there are no leaks.