

1. COMMON MODEL INFORMATION

MOTOR SELECTION

Secure and correct outboard motor set-up is essential for safe boating and good performance. Follow the installation instructions provided in this guide.

NOTICE

Do not use an air impact tool to tighten or loosen the transom bolts. Using an air impact tool to tighten or loosen the transom bolts can generate enough heat to damage the bolt threads. The air impact tool can also produce enough tightening torque to damage the boat transom.

Before installation, be sure the outboard motor does not exceed the recommended maximum horsepower for the boat. Refer to the boat's certification plate for recommended maximum horsepower. For most applications, the outboard motor should provide 80% of the recommended maximum horsepower for the boat. If the certification plate information is not available, contact the boat dealer or manufacturer.

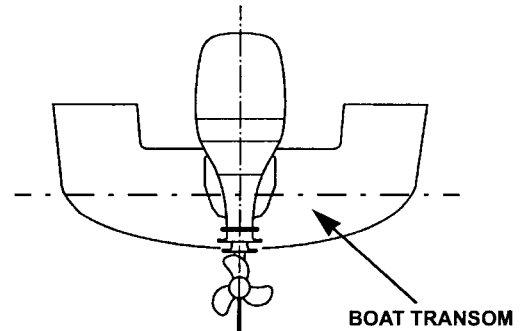
Refer to the dimensional drawings in the appropriate *Honda Marine Shop Manual* to be sure there is nothing on the boat that will interfere with outboard motor tilt-up and steering.

On a dual motor installation when the minimum distance between motors is used, the engine cover of one motor may interfere with the adjacent motor if only one motor is tilted up when the boat is steered full right or full left.

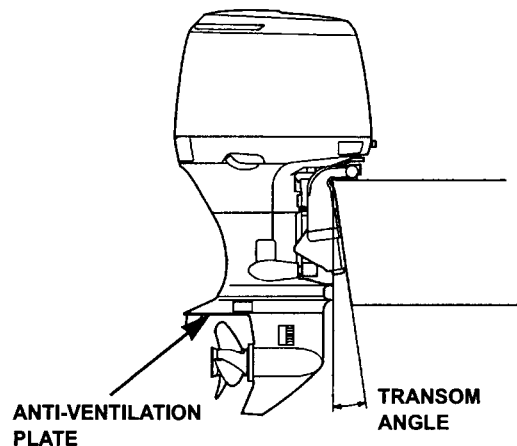
NOTICE

Do not tilt one motor up when the boat is steered full right or full left, or the engine cover may be damaged.

ANTI-VENTILATION PLATE HEIGHT

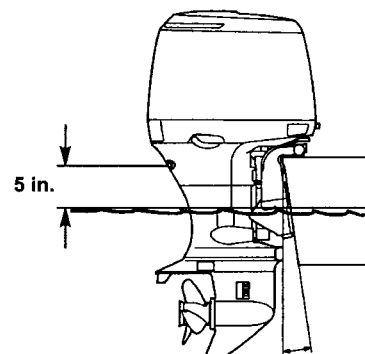


Install the outboard on the center of the transom securely, and be sure the boat is well-balanced.



As a general rule, the outboard should be mounted so the anti-ventilation plate is parallel to and on the same plane as the boat bottom or slightly higher.

If the boat transom angle is less than 8° (4° on BF8D/9.9D, BF15D/BF20D and BF25A/30A; 12° on BF200A/225A), the anti-ventilation plate will not be parallel to the boat bottom when trimmed to the lowest hole.



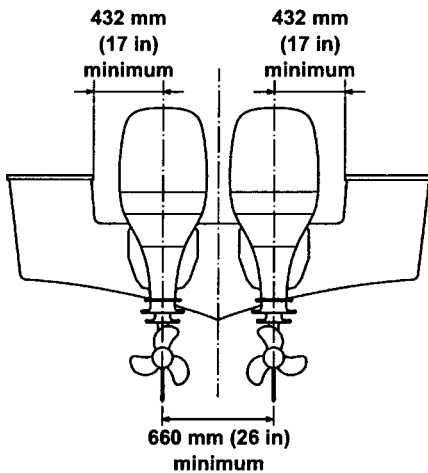
With the boat loaded and unmoving, and the outboard perpendicular to the water, ensure a **minimum 5 in. clearance** exists from the idle exhaust ports to the water level.

Refer to the boat specifications for details.

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DUAL OUTBOARD INSTALLATION

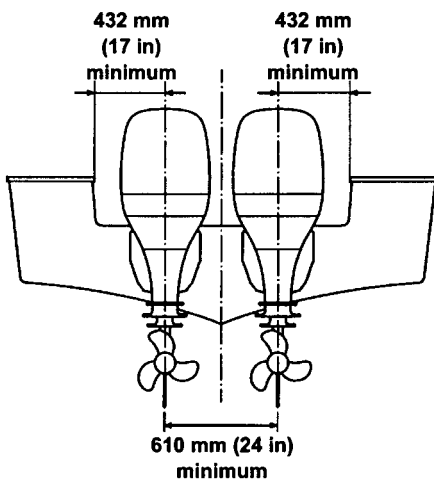
BF200A/225A, BF115A/130A, BF75A/90A



Dual outboards must be installed so the outboard center-to-center distance is a minimum of 660 mm (26 in). The transom board should still have a minimum extra space of 432 mm (17 in). Be sure the boat is well-balanced.

Mount the counter-rotation outboard on the port side.

BF40A/BF50A

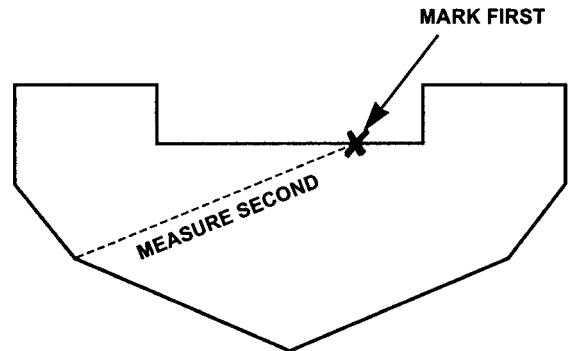


Dual outboards must be installed so the outboard center-to-center distance is a minimum of 610 mm (24 in). The transom board should still have a minimum extra space of 432 mm (17 in). Be sure the boat is well-balanced.

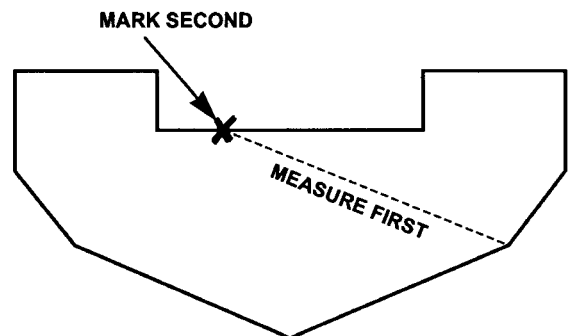
TRANSOM CENTER LINE

Measure across the transom to determine the transom center line and draw a vertical line. On a "V" bottom boat, the vertical line should pass through the keel.

Use a pencil and tape measure to locate center line.

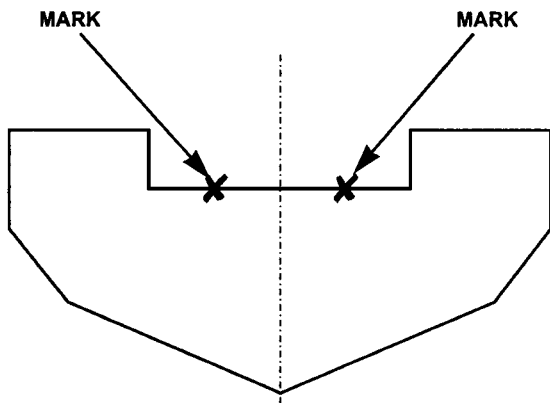


1. Put one end of the tape measure on a chine and place the other end on the upper edge of the transom, somewhere past the "visual" center. Place a mark on the transom and record the distance measured.

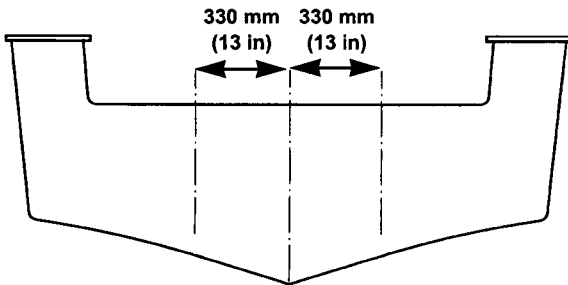


2. Measure the same distance from the opposite chine and make a mark.

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3. Measure the distance between the two marks and place a third mark halfway between them. The line connecting the third mark with the keel is the center line.



4. If dual outboards are to be installed, mark transom at a minimum of 330 mm (13 in) [305 mm (12 in) for BF40A/BF50A] from center line.

INSTALLATION HEIGHT CHECK

Optimum outboard motor installation height varies with boat type and bottom shape. See **INSTALLATION HEIGHT RECOMMENDATIONS** section under the applicable model-family chapter. Contact boat manufacturer for any special recommendations unique to a specific model boat.

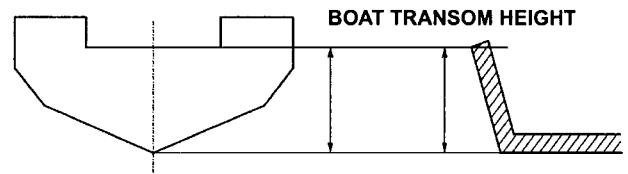
If the outboard motor is installed too low:

- The boat will squat and be hard to plane.
- The boat will tend to porpoise.
- The boat's high-speed stability will be reduced.
- Top speed will be reduced.

If the outboard motor is set-up too high:

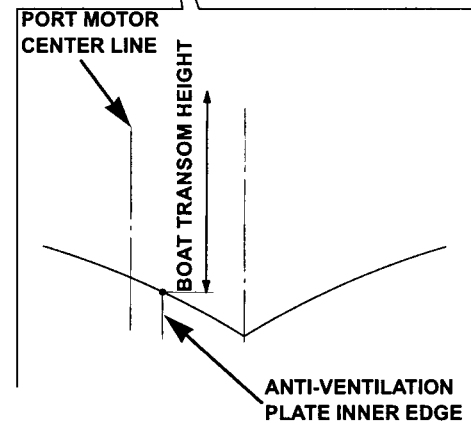
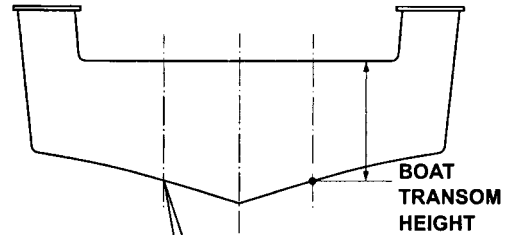
- Propeller ventilation will occur.
- Engine overheating will occur.
- The boat will tend to porpoise.

SINGLE OUTBOARD

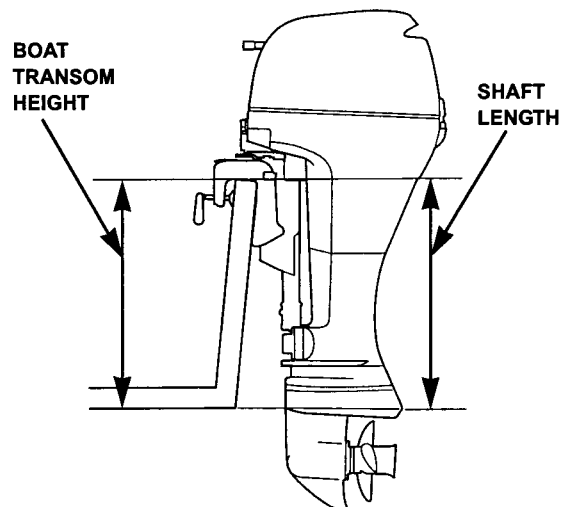


Measure from the top of the transom to the bottom of the boat, not including the keel.

DUAL OUTBOARDS



On a vertical line, inward from the outboard centerline and even with the edge of the anti-ventilation plate, measure up to the top of the transom.



Select an engine with a shaft length 1 inch longer than boat transom height. The shaft length of an