



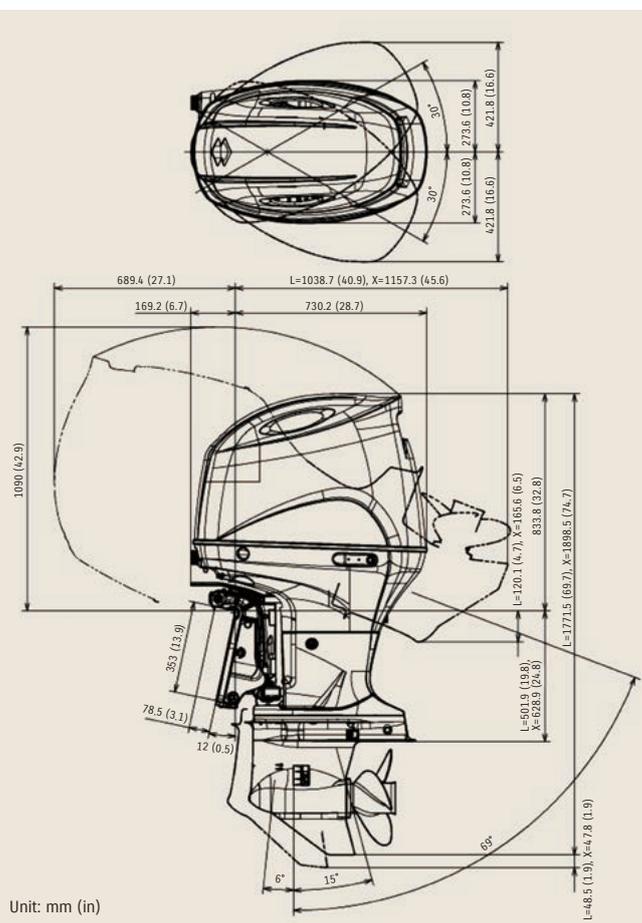
## DF175AP/150AP SPECIFICATIONS

MODEL	DF175AP	DF150AP
RECOMMENDED TRANSOM HEIGHT mm (in.)	L:508 (20) X:635 (25)	L:508 (20) X:635 (25)
STARTING SYSTEM	Electric	
WEIGHT kg (lbs.) *1	L:236 (520) X:241 (531)	L:236 (520) X:241 (531)
ENGINE TYPE	DOHC 16-Valve	
FUEL DELIVERY SYSTEM	Multi-Point Sequential Electronic Fuel Injection	
NO. OF CYLINDERS	In-Line 4	
PISTON DISPLACEMENT cm <sup>3</sup> (cu.in.)	2,867 (174.9)	
BORE × STROKE mm (in.)	97 × 97 (3.81 × 3.81)	
MAXIMUM OUTPUT kW (PS)	129.0 (175)	110.0 (150)
FULL THROTTLE OPERATING RANGE rpm	5,500-6,100	5,000-6,000
STEERING	Remote	
OIL PAN CAPACITY (U.S./Imp. qt.)	8.0 (8.5/7.0)	
IGNITION SYSTEM	Fully-transistorized	
ALTERNATOR	12V 44A	
ENGINE MOUNTING	Shear Mount	
TRIM METHOD	Power Trim and Tilt	
GEAR RATIO	2.50:1	
GEAR SHIFT	F-N-R (Drive-by-Wire)	
EXHAUST	Through Prop Hub Exhaust	
PROPELLER SELECTION (Pitch) <sup>*2</sup>	3×16×15-27.5 3×16×17-26 (C/R)	

\*1: Dry Weight: Including battery cable, not including propeller and engine oil.

\*2: Please inquire at your local dealer for details of the propeller.

## DIMENSIONS



Please read your owner's manual carefully. Remember, boating and alcohol or other drugs don't mix. Always wear a personal flotation device when boating. Please operate your outboard safely and responsibly. Suzuki encourages you to operate your boat safely and with respect for the marine environment.

Specifications, appearances, equipment, colors, materials and other items of "SUZUKI" products shown on this catalogue are subject to change by manufacturers at any time without notice and they may vary depending on local conditions or requirements. Some models are not available in some territories. Each model might be discontinued without notice. Please inquire at your local dealer for details of any such changes. Actual body color might differ from the colors in this brochure.



**SUZUKI**

**SUZUKI MOTOR CORPORATION**

300 TAKATUKA-CHO, MINAMI-KU, HAMAMATSU CITY, JAPAN 432-8611

99999-C2080-001 DF175AP/150AP PRODUCT INFORMATION © Printed in Japan 1608

# DF175AP/150AP

LEAN BURN 



## PRODUCT INFORMATION



THE  
**ULTIMATE**  
4-STROKE OUTBOARD



Way of Life!

## High-End Performance And Features Put The New DF175AP/150AP In A Rank Above The Rest

Suzuki's ability to deliver outstanding power and performance from remarkably compact outboards has brought the company more awards for innovative designs than any other manufacturer in the industry. This was demonstrated with the release of the DF200AP, which provided boaters with a lighter, more compact in-line four-cylinder alternative to V6 power in the 147kW (200PS) outboard class. The new DF175AP and DF150AP are direct products of the DF200AP and offer the same level of technological and high-end features found on the DF200AP.

Based on the same 2.9-liter "Big Block" in-line four-cylinder DOHC engine, the DF175AP and DF150AP both lay claim to the largest displacement title in their respective classes\*. These outboards also feature a higher 10.2:1 compression ratio that allows the engine to generate more power delivering impressive acceleration and low-end torque.

To maximize performance, each outboard is equipped with a Semi-Direct Intake system to provide the engine with a cooler flow of air, an O<sub>2</sub> Sensor to optimize combustion, and Knock Sensor for superior reliability. Other high-end features include Suzuki Selective Rotation, which allows the same engine to operate in either normal or counter-clockwise direction\*\* for multi-engine applications, Suzuki Lean Burn Control and Suzuki Precision Control for outstanding fuel economy over a wide operating range and smoother power transitions, and Suzuki's Keyless Start system, which also acts as an theft deterrent.

Both outboards feature new 3D decals and are available in Pearl Nebular Black—our deepest black finish yet—or the modern Cool White letting you pick the body color that looks best on your boat.

\* as of Aug, 2016.





## Main Features of the New DF175AP/150AP

- Suzuki's "Big Block" in-line four-cylinder engine utilizes a large 2,867cm<sup>3</sup> displacement and high compression ratio to generate 129.0kW (175PS) and 110.0kW (150PS) for impressive acceleration and low-end torque.
- Suzuki Selective Rotation allows the same engine to be configured for either regular or counter-clockwise operation\*\*.
- Semi Direct Air Intake System provides the engine with a cooler airflow to enhance power output.
- Suzuki Lean Burn Control combined with Suzuki Precision Control offers excellent fuel efficiency over a wide operating range while smoothing power transitions when power is needed.
- Knock and O<sub>2</sub> sensors plus a water detecting system provide greater operating reliability.
- Variable Valve Timing System (VVT) increases low- to mid-range torque for superior acceleration.
- Multi-Stage Induction System enhances top-end performance.
- Intake Resonator further reduces operating noise for a quieter running engine.
- Keyless Start System offers easy, stress-free starts and functions as an immobilizer to help deter theft.
- Pearl Nebular Black finish and 3D emblems give these outboards a refined look.

## ADVANCED TECHNOLOGY FOR PERFORMANCE

### Big Block—High Performance Engine

The new DF175AP/150AP development team based both of these new Suzuki outboards on a big block inline four-cylinder four-stroke engine with a 2,867cm<sup>3</sup> displacement. The block is topped with a DOHC powerhead that provides four-valves per cylinder for high performance. While the large displacement allows both to deliver exceptional acceleration and velocity, our engineers made sure that the outboard's final dimensions are as compact and lightweight as possible. Both outboards feature some of the best of Suzuki's advanced technologies that have been developed to extend engine performance.

### High 10.2:1 Compression Ratio and Largest in Class Displacement\*

Compression and displacement each play important roles in delivering performance and power output. Displacement has a direct effect on acceleration and torque so a bigger displacement is generally going to deliver more of both. Higher compression ratios allow the engine to get more output out of the combustion process resulting in noticeable improvements in performance and power. Drawing on our extensive motorsports experience and expertise in building race engines, Suzuki engineers have combined a 2,867cm<sup>3</sup> displacement (the largest in each outboard's class) with a high compression ratio of 10.2:1 to obtain great performance from these compact engines.

\* as of Aug, 2016.

### Semi-Direct Air Intake System

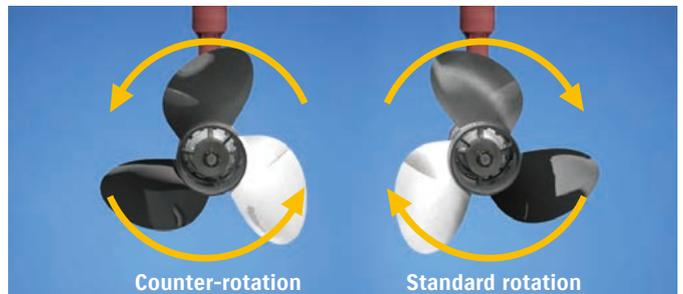
Underneath the modern upswept engine cover are a number of function-focused features that enhance engine performance. Both the DF175AP and DF150AP are equipped with a Semi-Direct Air Intake system that brings cooler air directly into the multi-stage induction module. Engines that breathe cooler air can operate more efficiently resulting in greater acceleration and top-end speed. Covers also have ports on the top that allow the rotating flywheel to push warm air inside of the cover to the outside helping to reduce temperature inside of the cover.



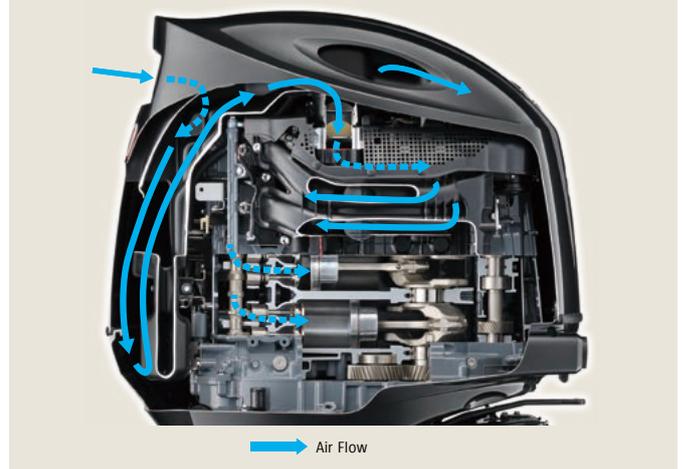
### Suzuki Selective Rotation

Large boats equipped with multi-outboard installations generally pair a standard rotation outboard with a counter-rotation model to keep the boat traveling in a straight line and on an even keel. Once requiring the purchase of a dedicated counter-rotation model, Suzuki's innovative Suzuki Selective Rotation eliminates that need by incorporating a special, unified design of gears, shaft, and bearings in the lower unit that allow the outboard to operate reliably and efficiently in either direction. Available on both the DF175AP and DF150AP, counter-rotation operation requires an optional activation switch that connects to a circuit inside of the engine compartment plus the installation of a counter-rotation propeller\*\*.

**SUZUKI  
SELECTIVE ROTATION**



### Semi-Direct Air Intake System



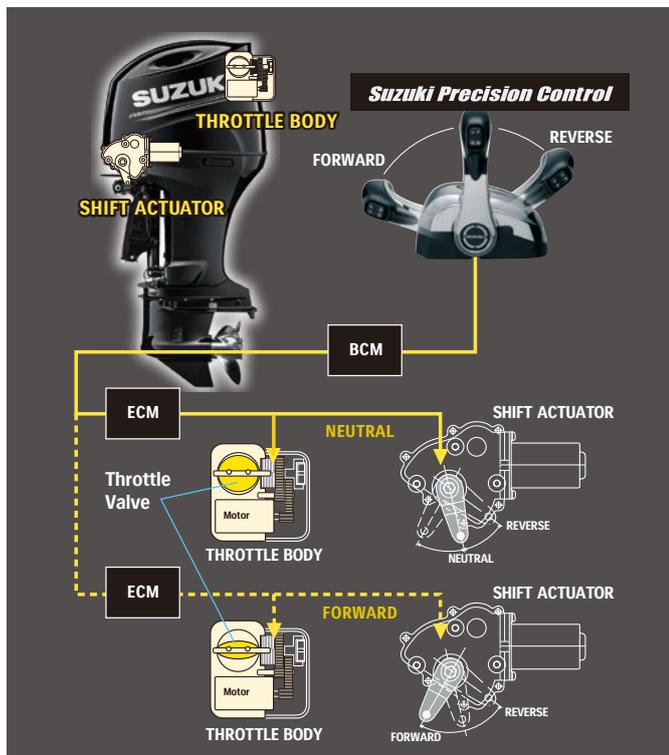
\*\* Consult with your dealer before changing Standard Rotation to Counter-Rotation (or vice versa). The optional connector and additional propeller are needed to change the outboards rotation.

# DF175AP/150AP PRODUCT INFORMATION

## ADVANCED TECHNOLOGY FOR PERFORMANCE AND SMOOTH OPERATION

### Suzuki Precision Control (Electronic Throttle and Shift System)

Suzuki Precision Control is a technologically advanced computer-based control system that replaces the mechanical control cables found in conventional control systems with electronic wiring that eliminates the source of friction and resistance. While you enjoy smooth, little friction throttle and shift operation, the system's computer is processing and transmitting commands in real-time to actuators at the engine that deliver precise throttle controls with smoother, decisive shifting. This is most evident in the low rpm range where operation is noticeably smooth and accurate. When combined with Suzuki's Lean Burn Control System it allows control of fuel and air flow to boost the limit of the controllable revolution



range improving fuel economy over a wide operating range. Suzuki Precision Control also features built-in systems that help guard the engine and drive against damage due to mishandling, and its design and simple wiring make installation easy, reducing the time required for rigging and adjustment.

The system offers precision control for single, twin, triple or quad installations as well as dual station operation.

### Suzuki Lean Burn Control System

The Suzuki Lean Burn Control System is an intelligent fuel delivery system that achieves remarkable improvements in fuel consumption making fuel-efficient four-stroke outboards even more economical. Monitoring engine performance and operating conditions in real time, the system uses the 32-bit onboard ECM to predict fuel needs and deliver a leaner, more precise fuel mixture across the outboard's operating range. The results show significant improvements in fuel economy across the entire powerband, including the cruising range where the engine is used a majority of the time.



### O<sub>2</sub> Sensor Feedback Control System

A key sensor in the electronic fuel injection system, the O<sub>2</sub> Sensor Feedback Control system provides accurate, real-time information that the ECU uses to manage the fuel/air ratio as operating conditions change. Utilized on many of Suzuki's high-end outboards, the O<sub>2</sub> Sensor Feedback Control system helps maintain optimum engine operating efficiency across the engine's full operating range.

### Knock Sensor

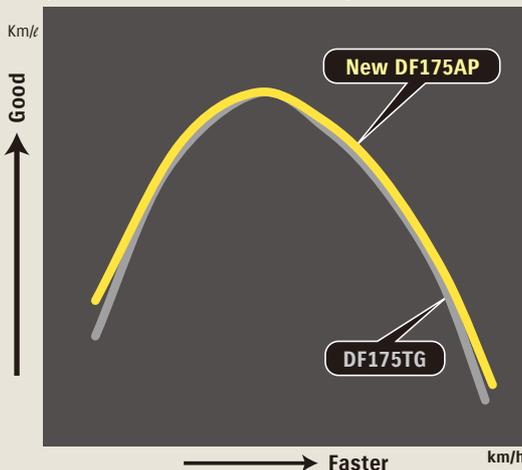
The knock sensor monitors combustion to provide the ECM with information needed for precise management of engine timing for optimum performance. In addition to maximizing power output, the system also helps increase engine durability.

### Variable Valve Timing (VVT)

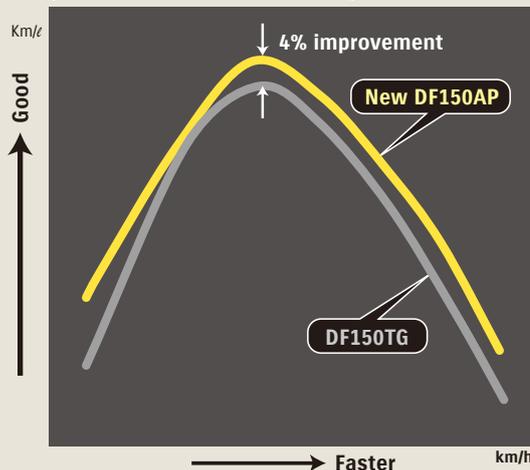
Variable Valve Timing is utilized on many of Suzuki's high-end outboards to deliver high performance across the outboard's full powerband while retaining the benefits that four-stroke technology provides. The system starts with an innovative cam profile designed for delivering maximum output and performance at high rpm. Variable Valve Timing is used to vary intake timing with the camshaft to optimize timing for low to mid-range operation. This allows the engine to deliver maximum power output across its entire operating range producing greater low to mid-range torque for powerful acceleration. The entire process happens automatically leaving you to enjoy the power and performance.

### Comparison of Fuel Consumption per Liter

(New DF175AP vs. Current DF175TG)



(New DF150AP vs. Current DF150TG)



Compared to the current DF175TG/150TG, the new DF175AP/150AP offer superior fuel consumption over their full operating range. Especially the DF150AP, which now incorporates both our Drive By Wire Control system and Variable Valve Timing (VVT), shows a fuel economy improvement of 4% (at 40km/h).

\* Data used in the graphs were obtained through "In-House Suzuki Testing" under uniformed conditions. Results will vary depending upon operating conditions (boat design, size, weight, weather, etc.)

## Multi-Stage Induction (MSI)

Getting the right amount of air into the cylinder has a great impact on performance. High-speed operation typically requires a greater volume of air, low-speed less. Suzuki's Multi-Stage Induction system meets these needs by utilizing two intake manifold pipes per cylinder to ensure the engine gets the right amount of air. At low rpm, air enters the combustion chamber through a longer, curved manifold pipe designed to improve combustion and boost low-end torque. As rpm increases, the valves open on the direct intake pipes. Shorter and lacking resistance, these pipes allow a greater volume of air into the chamber, increasing the engine's ability to breathe efficiently at high rpm resulting in higher power output during high-speed operation.

### Air Flow in Multi-Stage Induction Module

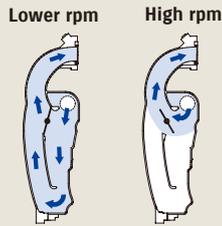


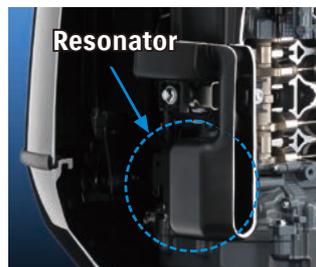
Figure as seen from above

## Counter Balancer System

One of the inherent characteristics common to in-line four-cylinder engines when operating at high rpm is a secondary vibration that is directionally in line with the piston's movements. To neutralize this vibration, Suzuki engineers utilize a secondary balancer system that counters the piston's movement with a horizontal motion. To achieve this, the balancer is divided into left and right sections each rotating in an opposite direction at twice the speed of the crankshaft, effectively countering the secondary vibrations and producing smoother engine operation.

## Resonator

The engine's exhaust system is a well-known source of engine noise, but another, often overlooked source is the intake manifold. Air being sucked into the intake manifold at high velocities can generate a harsh sound. The DF175AP/DF150AP incorporate an air intake resonator that reduces such noise keeping operation exceptionally quiet.



## Thrust Mount System

Both the DF175AP and DF150AP incorporate a combination of soft type and high thrust rubber mounts on both upper and lower mounts to

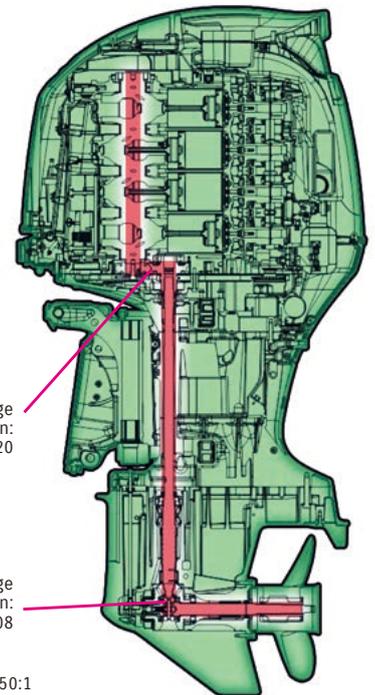
reduce engine vibration and provide stable operation. Soft type rubber mounts are used to absorb vibrations generated in the idling through 2,000 rpm range while high thrust rubber mounts deliver stable operation under high loads increasing power and performance.

## Quiet Operation

Suzuki four-stroke outboards have long been noted for their exceptionally quiet operation. Suzuki engineers go to great lengths incorporating methods designed to keep outboard operation as quiet as possible.

## Offset Drive Shaft

Pioneered by Suzuki, the use of the offset drive shaft on four-stroke outboards has long been utilized to reduce the size of the outboard. Found on all Suzuki four-strokes from the DF70A and up, this design positions the crankshaft in front of the drive shaft simultaneously moving the outboard's center of gravity forward. While the design contributes greatly to the outboard's overall compactness and increased power performance, it also moves the engine's axis of inertia, the point where engine vibrations are at a minimum, up over the upper engine mount, thus greatly reducing vibration. These outboards also incorporate two-stage gear reduction designed to take maximum advantage of the power produced by these high performance engines. Providing a final drive ratio of 2.50:1—the largest you can find in either of these outboard classes—it delivers powerful torque for quick acceleration and great top-end speed.



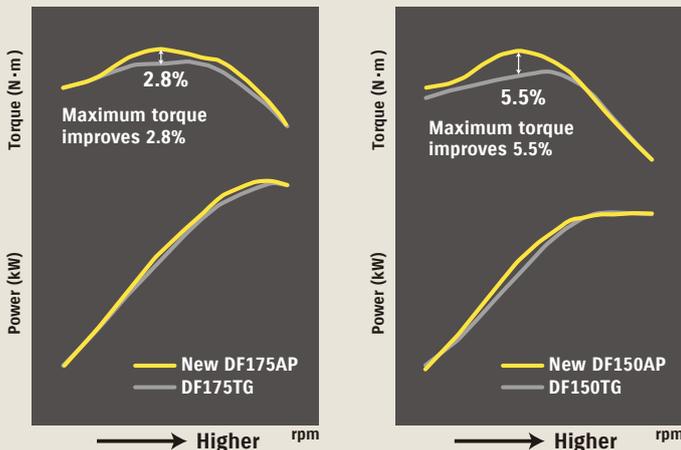
1st Stage Reduction: 30:36=1.20

2nd Stage Reduction: 12:25=2.08

TOTAL=2.50:1

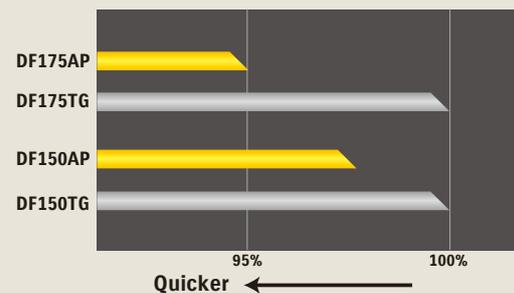
## Comparison of Performance Curve (New DF175AP/150AP vs. Current DF175TG/150TG)

When compared to the DF175TG/DF150TG, improvements in power output have been achieved over a majority of the operating range.



## Acceleration Time Comparison (0-50km/h)

(New DF175AP/150AP vs. Current DF175TG/150TG)  
(DF175TG/150TG Acceleration Time = 100%)



\* Data used in the graphs were obtained through "In-House Suzuki Testing" under uniformed conditions. Results will vary depending upon operating conditions (boat design, size, weight, weather, etc.)

# DF175AP/150AP PRODUCT INFORMATION

## ADVANCED ELECTRONICS AND DESIGN WITH CONVENIENCE IN MIND

### 32-Bit ECM (Engine Control Module)

Both the DF175AP and DF150AP utilize a 32-bit ECM (Engine Control Module) that provides precision control over motor operation, particularly the ignition and fuel delivery systems. This powerful onboard computer monitors and processes key data gathered in real-time from a series of sensors placed in areas crucial to engine operation. Those sensors include the Manifold Absolute Pressure Sensor, Crankshaft Position Sensor, Intake Air Temperature Sensor, Shift Position Sensor, Throttle Position Sensor, Cylinder Wall Temperature Sensor, Camshaft Position Sensor, and Exhaust Manifold Temperature Sensor. Using these data the computer delivers precision control of the engine's ignition and fuel systems maintaining an optimal spark and fuel supply under all operating conditions.

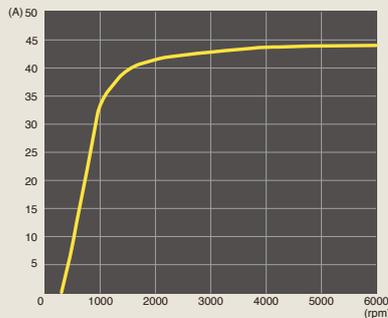
### Multi-Point Sequential Electronic Fuel Injection

Suzuki pioneered the use of electronic fuel injection in four-stroke outboards with the launch of its original DF70/60 in 1997. Suzuki's Multi-Point Sequential Electronic Fuel Injection supplies each of the engine's cylinders with an optimized mixture of fuel and air that is injected into the cylinder at high pressure according to commands from the ECM's 32-bit computer. The system delivers improved fuel economy, crisp acceleration and reduced emissions that meet emissions regulations. It also conforms to the Recreational Craft Directive (RCD) Standards, Directive 2003/44EC of the European Parliament and of the Council, and has received a three-star rating from the California Air Resource Board (CARB).

### High Output Alternators

Today's boats are equipped with a wide array of electronics that demand an ample flow of power to keep them running. With that in mind, Suzuki engineers have equipped the DF175AP and DF150AP with an alternator that produces a majority of its maximum 44A (12V) output with the motor running at a low 1,000 rpm—enough power for most circumstances.

Alternator Output



### Suzuki Keyless Start System\*

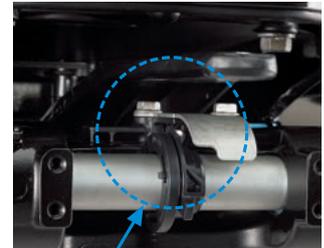
Suzuki's Keyless Start system utilizes a proximity key-fob that transmits an access code to the engine's starting system. As long as you have the key-fob on your person, all you need to do is stand within one meter of the console, connect the emergency switch code, turn on the main switch, then start the outboard with a push of a button. With the key remaining safely in your pocket, the system offers simple, stress-free operation while reducing the risk of a lost key. The system also makes for an excellent theft deterrent since the outboard will not start without the proper access code. The key-fob also floats so should it ever go overboard you can retrieve it.



\* Availability may differ in some regions. Please contact your local Suzuki dealer for more information.

### Tilt Limit System

To protect the boat and motor from damage that can occur when tilting the motor, both outboards incorporate a user adjustable tilt limit switch that prevents the outboard from tilting beyond a predetermined point.



Tilt Limit System

### Suzuki Water Detecting System

Water in the fuel can lead to problems that include poor combustion, lower power output, and corrosion. The Suzuki Water Detecting System is designed to help protect the engine from moisture in the fuel utilizing a water detecting fuel filter to alert the operator with both visual and audio warnings when water is present in the fuel. The filter is also designed to let you check for water visually.

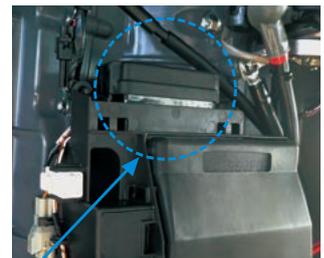


### Water-cooled Voltage Regulator with Isolator

Water-cooled voltage regulators incorporated on both outboards dissipate heat in the regulator to enhance durability. The battery charging system also incorporates an isolator function that allows the use of two batteries. The system splits electric current into two circuits and is designed to safeguard the main battery in the event that the sub battery becomes drained.

### Fuse Box

Fuses for the outboard's electrical system are housed in a single fuse box located on the side of the outboard motor. This design keeps the outboard's exterior clean while providing convenient access.



Fuse Box



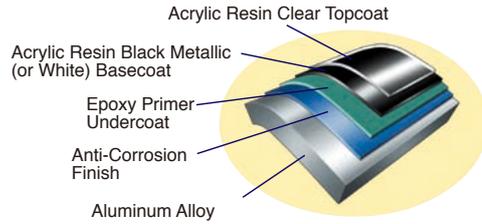
## Dual Engine Flush Ports

Over time, salt, sand, and dirt buildup can restrict flow in the cooling system causing damage. To help prevent such buildup, both outboards are equipped with two freshwater flush ports that make flushing the cooling system as easy as possible. With one port located on the port side of the down housing and a second on the front panel, you'll always have easy access to the flushing system whether the boat is in or out of the water.



## Suzuki's Anti-Corrosion Finish

To guard against corrosion, Suzuki protects its outboards with its own specially formulated Suzuki Anti-Corrosion Finish. Applied directly to the outboard's aluminum alloy, this finish provides maximum bonding of the finish to the aluminum surface. Layering an epoxy primer undercoat, black metallic (or white) finish, and clear acrylic fiber finish on top of this forms an effective treatment against corrosion, protecting those parts of the outboard's aluminum alloy that are constantly exposed to saltwater.



## MULTI POINT SEQUENTIAL ELECTRONIC FUEL INJECTION

