









SUZUKI **GENUINE MARINE PARTS AND ACCESSORIES**











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.

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



Dear Customers,

Suzuki Outboards have been fascinating marine boaters and boatbuilders worldwide by their high quality, excellent performance and continuously innovative technology. We endeavor every single day to ensure you the DURABILITY - DEPENDABILITY - FLEXIBILITY of not only outboard engines, but also the Genuine Marine Parts and Accessories.

This catalogue provides you information about the highest quality Marine Parts & Accessories and all recommendations of how to integrate Accessories to your own outboard engine.

No matter what style you demand - classic simplicity or precise functionality - you'll find your best choice with our line-up of remote controls, gauges, our custom-engineered propeller and rigging kit, even optional instruments also match your expectations.

Please take your time reading through this catalogue. For Parts and Accessories order and installation, please contact your local Authorized Suzuki Marine Dealers for more details.



THE ULTIMATE SATISFACTION BEYOND EXPECTATION

Comes along with SUZUKI GENUINE MARINE PARTS AND ACCESSORIES

	OPERATION SYSTEM		SUZUKI PROPELLERS	
	Suzuki Multi-Function Display (SMD)	P6-15	WaterGrip	P32-33
	Suzuki Multi-Function Gauge (SMG4)	P16-17	Propeller Range	P35
1	Diagnostic Mobile App	P18-19	CARE AND MAINTENANCE ITE	MS
	Analogue Gauge	P20-21	SUZUKI COLLECTION	
	Suzuki Precision Control (SPC)	P22-23	Genuine Oil & Chemical	P38-39
	Mechanical Remote Control	P24-25	Suzuki Collection	P40-41
	Switch Panels	P26-27	UTILITY EQUIPMENT	
	Keyless Start System	P28-29	Utility Equipment	P44-45
			Application Chart	P46-47





ULTIMATE CONNECTIVITY

Never compromise on quality and customer satisfaction - We endeavor every day to bring you reliable, high quality products with latest technology to accompany you on every voyage.

HERE!

You can find your most pleasurable boating experience with our SUZUKI MULTI-FUNCTION DISPLAY (SMD). SMD is designed to allow you to access to all your Suzuki engine information and other utility functions with a single touch!

NOW!

Enjoy your true boating comfort with our SMD!





PRODUCT LINE-UP





SMD16



SMD12



MD9

SMD7

KEY FEATURES

- ✓ Intuitive, easy, smooth operation with an entire multi touch screen interface. Total control at your fingertips
- ✓ Bonded all-glass LCD, sunlight viewable screen with impressive brightness, and a luxurious look
- ✓ Ease of operation with all Suzuki engine information integrated on one display
- ✓ All latest and unique technologies such as TruEcho Chirp™, Accu-Fish™, RezBoost™ combined in one display provide you the most exciting fishing experience*

WHAT'S NEW!

SUZUKI GENUINE FUEL TANK ADAPTER

The genuine fuel tank adapter is designed to be compatible with SMD



APPLICABLE MODELS: DF9.9B-DF350A

FEATURES

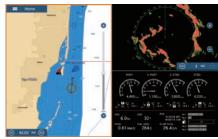
- ✓ Possible to connect to 4 tank senders
- ✓ Initial configuration is available on SMD
- ✓ Fuel tank senders are compatible with 3 specifications: EU, ABYC, and Custom

^{*} Requires FURUNO transducer to utilize the built-in fish finder. Please contact your nearest FURUNO dealers for further information

THE ULTIMATE OUTBOARD MOTOR



Design Your Own Screen



Suzuki Engine Interface













Multi Beam Sonar*

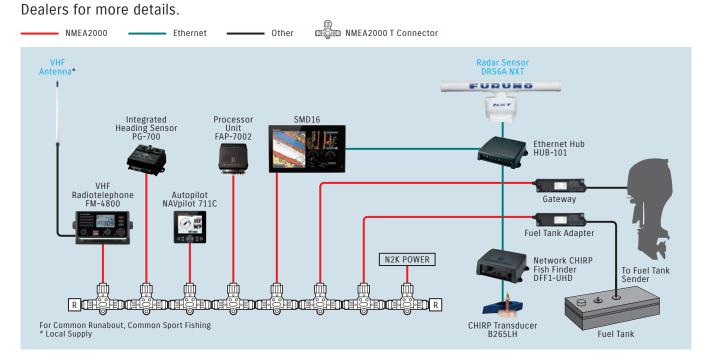
Marine Weather Forecast

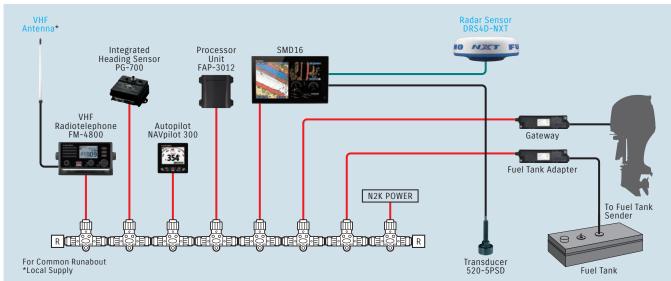


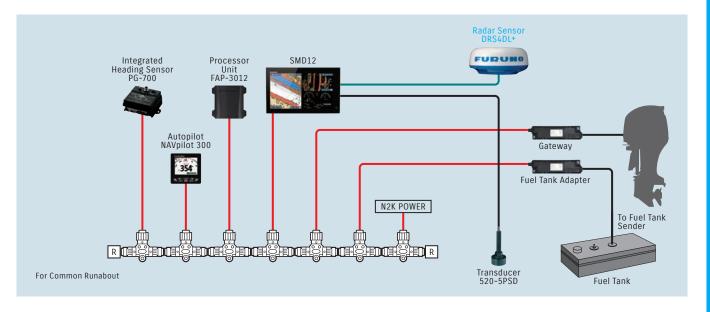
Integrated FISH-FINDER*

SMD NETWORK RECOMMENDATIONS





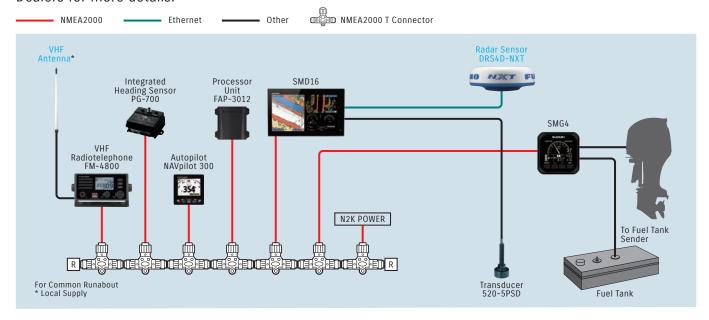


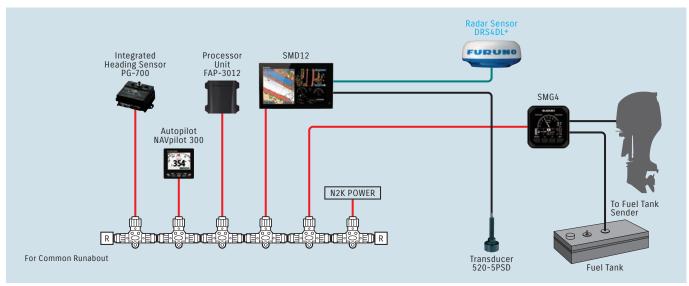




SMD NETWORK RECOMMENDATION In case of installing SMG4

Product suggestion only - Not an installation diagram. Please contact your local Authorized Suzuki Dealers for more details.







SMD16 AND SMD12 SPECIFICATIONS

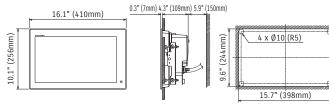


MULTI-FUNCTION DISPLAY		SMD16	SMD12									
DISPLAY UNIT												
Туре		Color TFT mult	i touch LCD									
Screen Size		15.6"(396.2mm) Wide	12.1"(307.3mm) Wide									
Screen Resolution		FWXGA 1366 x 768 pixels	WXGA 1280 x 800 pixels									
Screen Brightness		1000 cd/m² (typical)	1300 cd/m² (typical)									
Language		Chinese (simplified Chinese Characters), Danish, English (US & UK), Finnish, French, German, Greek, Italian, Japanese, Norwegian, Portuguese, Russian, Spanish, Swedish										
Display Modes		GPS/WAAS/RADAR: Course plot, NAV data, Radar Chart Overlay, Head-up, North-up (heading data required), Fish Finder: ACCU-FISH™, A-scope, Auto (Fishing/ Cruising), Bottom Discrimination, Others: Weather Forecast, Digital switching, Marine Audio										
Memory Capacity		30,000 user points, 30,000 points for ship's tracks, 200 planned routes (500 points per route)										
GPS/WAAS												
	GPS	56 chani	nels									
Receiver Type	SBAS	1 channel (C/A m	node, WAAS)									
Receiving Frequency		L1 (1575.42	2 MHz)									
Time to First FIX		100 s (cold	I start)									
Tracking Velocity		999 k	n									
SBAS		WAAS, EGNO	S, MSAS									
ACCURACY												
	GPS	10 m M	lax									
Internal Antenna	WAAS	3 m Ma	ах									
	MSAS	7 m Ma	ах									
CHART PLOTTER												
Cartography		MapMedia mm3d chart (C-MAP/Navionics/NOAA)										
Alarms		Anchor Watch, XTE, Proximity, Dep	oth, Temperature, Speed, etc.									
RADAR												
Display Modes		Head-up, North-up* *H	leading input required.									
Target Tracking**		30 Targets* *Headin	ng input required.									
FISH FINDER (Built-in)												
Transmit Frequency		50/200 kHz										
Transducer		600 W or 1 kW* *Matching Box MB-1100 required for some specific FURUNO transducers										
Modes		RezBoost™, ACCU-FISH™, Bottom Discrimination, A-Scope, Auto (Fishing/Cruising), Manual, Bottom Zoom, Bottom Lock										
INTERFACE												
NMEA2000		1 Por	t									
Interface NMEA2000	Input	059392, 059904, 061184, 060928, 065280, 126208, 126720, 126992/9 129025/026/029/033/038/039/040/041/291/538/540, 129793/794/798/80 /820/822/823/826/827/828/880										
NMEA2000	Output	126992/127250/127251/127257/127258/128259/128267/128275/12902 130312/130313/130314/130316	5/129026/129029/129033/129283/129284/129285/130306/130310/									
NMEA0183		1 Integrated 0	utput Port									
Interface (NMEA0183)	Output	AAM, APB, BOD, DBT, DPT, GGA, GLL, GNS, GSA, GSV	, RMB, RMC, RTE, TLL, TTM, VTG, WPL, XTE, ZDA									
LAN		1 Port (100B	ASE-TX)									
USB		1 Port (US	B2.0)									
Video Output		1 Port (H	DMI)									
Video Input		2 Ports (NTS	SC/PAL)									
AUX I/O		1 Port (External Event/MOB Input/O										
SD Card Slot		1 Slot (Micro SDXC, rear), 2 S	Slots Card Unit (optional)									
Wireless LAN		IEEE802.11b/g/n, Transmit fr	equency: 2.4 GHz band									
ENVIRONMENT												
Temperature (IEC60945)		-15°C to +	-55°C									
Waterproofing		IP56										
POWER												
		12-24 V	/DC									
		3.6-1.8 A	3.0-1.5 A									
			IA329A dtiw oldelieve toll **									

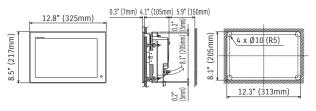
** Not available with DRS4DL

SMD16 Display Unit

10.6lb (4.9kg)



SMD12 Display Unit 8.2lb (3.7kg)



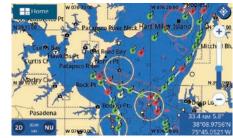
CUSTOMISING YOUR DISPLAY SMD9 & SMD7

Design Your Own Screen







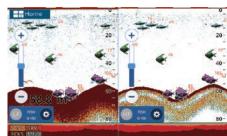


Detailed Chart With C-MAP 4D Compatibility

Suzuki Engine Interface





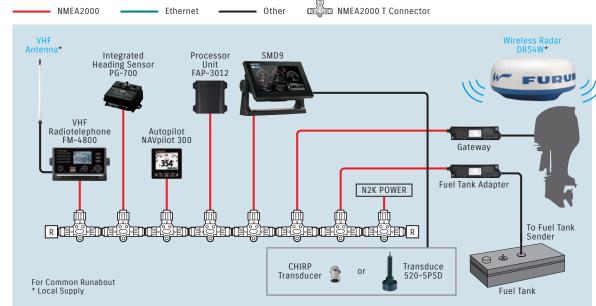


Advanced Reliable Fishing Partner-FISH FINDER*

SMD NETWORK RECOMMENDATIONS

Dealers for more details.

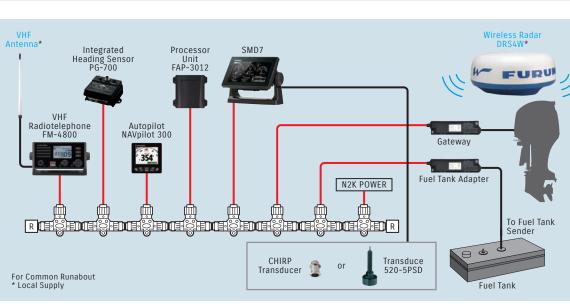
Product suggestion only - Not an installation diagram. Please contact your local Authorized Suzuki







access at the same





WHAT'S NEW!

NEW WIRELESS SOLUTION - MIRROR CONTROL APP TWO-WAY COMMUNICATION!

Combination with iOS/Android device increases the controllable station via Wireless LAN



The following App supports the mirror control of SMD7/9 over an iOS/Android device



App : Mirror Control (free of charge) Seller : AvMap srl

For iOS (App Store)



For Android (Google Play)



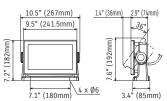
 $^{{}^{\}star} \ \text{Requires FURUNO transducer to utilize this feature. Please contact to local FURUNO Dealers for more details.}$

SMD9 AND SMD7 SPECIFICATIONS

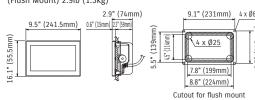
MULTI-FUNCTION DISPLAY		SMD9	SMD7									
DISPLAY UNIT												
Туре		Color TFT Mult	ti Touch LCD									
Screen Size		9"(228.6mm) Wide	7"(117.8mm) Wide									
Screen Resolution		WVGA 800 X	480 pixels									
Screen Brightness		1000 cd/m ²	² (typical)									
Language		English (US & UK), Russian, Bulgarian, French, Spanish, German, Italian	n, Portuguese, Danish, Swedish, Norwegian, Finnish, Greek, Japanese									
Display Modes		Chart Plotter, Fish Finder, Radar*1, AIS*2, Instruments*3 (Nav Data, Engine, Wind, Fuel tank, Autopilot*4, etc.), GPS status, Weather Forecast *1: Connection to the 1st Watch Wireless Radar DRS4W required *2: Connection to AIS sensor required *3: Connection to external sensors required *4: Connection to the FURUNO NAVpilot-300 required										
Memory Capacity		30,000 points for ship's track and waypoints 1,000 planned routes (Max. 50 points per route) 5,000 quickpoints										
GPS/WAAS												
Danakara Taran	GPS	72 cha	nnels									
Receiver Type	SBAS	1 channel (C/A	mode, WAAS)									
Receiving Frequency		L1 (1575.										
Time to First FIX		100 s (co	ld start)									
Tracking Velocity		999	·									
SBAS		WAAS, EGN										
ACCURACY												
	GPS	10 m	Max									
Internal Antenna	WAAS	5 m Max										
	MSAS	7.5 m										
CHART PLOTTER		7.0 11										
Cartography		C-MAI	P.4.D									
Alarms		Anchor, Depth, Arrival, Spec										
RADAR		Alichor, Deptir, Arrivar, Spec	cu, mp, remperature, etc									
Display Modes	I	Head-up, North-up*	*Heading input required									
FISH FINDER (Built-in)		nead up, worth up	Troubing input roquirous									
Transmit Frequency		CW: 50/200 kHz, CHIRP: 40 to 225 kHz										
Transducer		300 W or 600 W or 1 kW* (Transducer dependent) *Matching Box MB-1100 required for some specific FURUNO transducers										
Modes		TrueEcho CHIRP ^{TM*} , RezBoost ^{TM**} , ACCU-FISH ^{TM**} , Bottom Discrimination**, Auto gain (Fishing/Cruising), Manual gain, A-Scope, Marker Zoom, Bottom Zoom, Bottom Lock* CHIRP dedicated transducer required. ** Dual frequency compatible transducer required.										
INTERFACE												
NMEA2000		1 PG	ort.									
Interface	Input	126992, 127245/250/251/258/489/493/497/505, 128259/267/2 129793/794/798/808/809/810, 130306/310/311/312/313/314/3	275, 129025/026/029/038/039/040/041/285/538/540,									
NMEA2000	Output	126992, 127245/250/251/257/258/505, 128259/267/275, 1290	025/026/029/033/283/284/285, 130310/312/316/830/831/832									
NMEA0183		1 PC	ort									
Interface (NMEA0183)	Output	AAM, APB, BOD, BWR, DBT, DPT, GGA, GLL, GNS, GSA, GSV, GTD, HDG, HDT PFEC (SDmrk/SDtbd/SDtfl/pidat)	, MTW, MWV, RMA, RMB, RMC, RTE, THS, TLL, VHW, VTG, WPL, XTE, ZDA,									
SD Card Slot		2 Slots, up to 32 GB (S	CD SDHC Supported)									
Wireless LAN		2 3iots, up to 32 db (3										
ENVIRONMENT		IEEE 802.	11 UBII									
Temperature (IEC60945)		-15°C to	±EE.0℃									
		-15 C to										
Waterproofing POWER		IP5	0									
FOWER		10.04	VIDC									
	}	12-24										
		1.0-0	A C.									



(Bracket Mount) 3.3lb (1.5kg)

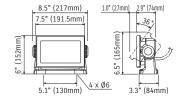


(Flush Mount) 2.9lb (1.3kg)

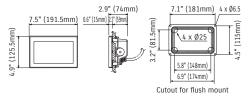


SMD7 Display Unit

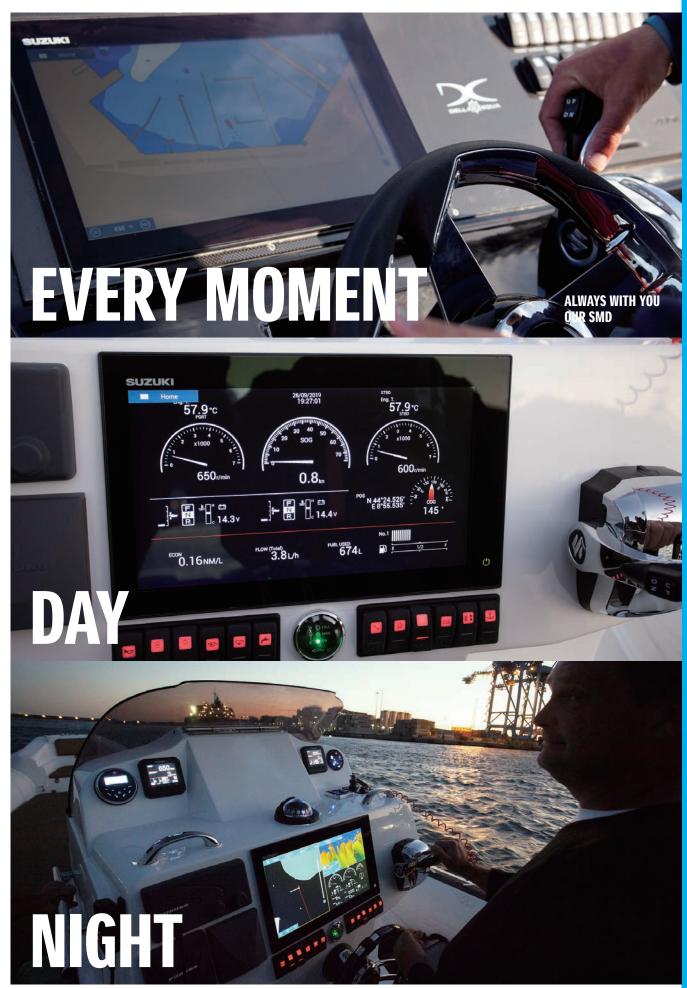
(Bracket Mount) 2.4lb (1.1kg)



(Flush Mount) 2.0lb (0.9kg)









When you are in the water, it is vital to acquire the information of engine performance and condition whenever you need. That's exactly the thinking behind our SMG4 - All you need for effortless and relaxing boating in one simple, reassuring and reliable device.



PRODUCT LINE-UP

ANALOGUE TACHO & SPEED MODE



DIGITAL TACHO & SPEED MODE



ANALOGUE SPEED MODE



DIGITAL TACHO MODE



ANALOGUE TACHO MODE



FUEL MODE



TROLL MODEL **FUNCTION***



OUTBOARD MOTOR





You can operate your Multi - Function Gauge in either digital or analogue display mode, depending on your preference. You can also zoom in on any individual elements of the display, making it even more clear to read. No matter what situation, the DAY and NIGHT settings are available to use flexibly.

* Troll Mode Function allows you to control troll mode from the SMG4. This function is available from 2019 year models and can be only used by models which adapted troll model.

KEY FEATURES

ANALOGUE TACHO & SPEED MODE



- ✓ Viewing a wide range of information, including engine rpm, speed and trim angle, as well as engine temp, fuel economy in 13 different units, and total fuel flow for multiple engine installations
- ✓ Automatically receiving alerts from the engine's sensors and warning systems

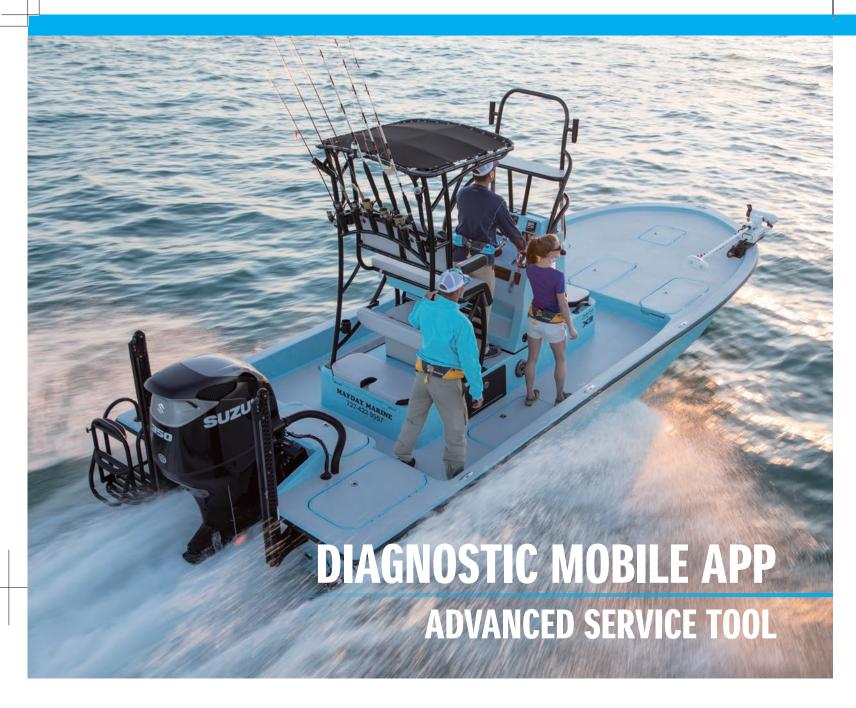
TACHO MODE



- Fuel flow (instantaneous) Mileage* (instantaneous and average)
- Trip time, Trip distance* Engine hour, Voltage, Water temp and more.

	GPS Module	Speed sensor
Speed	✓	✓(SOW)
Mileage	✓	✓(SOW)
Trip distance	✓	✓(SOW)
Time	✓	N/A

^{*} Speed sensor or GPS module will be required to display Speed, Mileage, Trip distance, Time information (SOW): Speed over water



SDS Mobile works in tandem with our Multi-Function Gauge and Multi-Function Display.

Simply download the App, which is available on iOS and Android to your smartphone: you don't need a separate device.

When you email your data scanned from QR code, the dealer will be supplied of information including engine number, number of hours since the last oil change, total hours of operation at different rpm, and technical information.

*DENSO WEB owns the right of name and logo of QR code.



DOWNLOAD THE APP FROM:



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Google Play and the Google Play logo are trademarks of Google LLC.

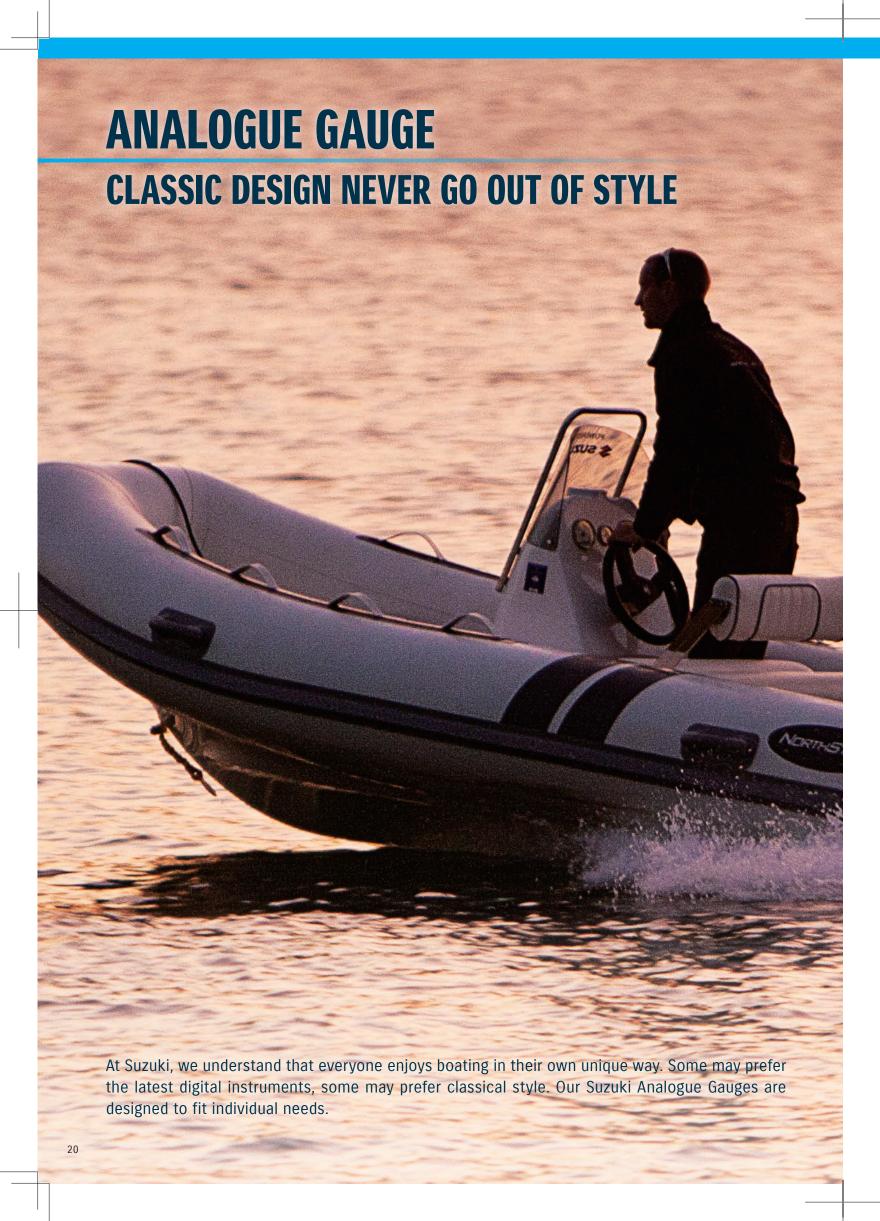
SDS Mobile App and email service is entirely free of charge



HOW IT WORKS

- 1. The Outboard sends engine data and converts it into a QR code displayed on the Multi-Function Gauge or Multi-Function Display.
- 2. With the SDS Mobile App, you can then scan the QR code on the Multi-Function Gauge or Multi-Function Display with your phone. The engine data will be stored on your smart phone.
- 3. You can then send the engine data via email to your Suzuki Dealer.





PRODUCT LINE-UP

THE ULTIMATE OUTBOARD MOTOR

TACHOMETER

Our full-scale tachometers indicate engine revs up to 7000 rpm, with options including caution lamp and troll mode.



TRIM GAUGE

Magnetic-type gauge shows trim angle for optimum performance and efficiency.







Black DF25A-DF250

HOUR METER

Powered by a 12-volt electric motor, this meter shows how many hours' operation your outboard has completed, so you can tell precisely when routine maintenance and service are required.





© 0 0 0 0 IB h

DF8A-DF250 DT30/40

WATER-PRESSURE GAUGE

Bourdon-tube type gauge measures coolingwater pressure.

DF8A-DF250 DT30/40



White DF40A-DF250



Black **DF40A-DF250**

A A STATE OF THE S

Black DF40A-200A

FUEL GAUGE

Simple and easy to read on the water.



DF8A-DF250



Black DF8A-DF25

VOLT METER

Monitors the charging system to help keep your outboard motor running at its best.



White DF8A-DF250 DT30/40



DF8A-DF250 DT30/40

SPEEDOMETER

Bourdon-tube type speedometer with readings in km/h and knots.



White



Black





PRODUCT LINE-UP

BINNACLE-MOUNT REMOTE CONTROL BOX



BINNACLE-MOUNT REMOTE CONTROL BOX

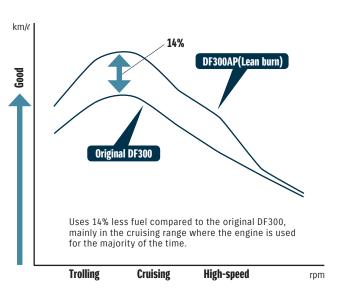


FLUSH-MOUNT REMOTE CONTROL BOX



KEY FEATURES

- ✓ Drive-by-wire technology delivers smoother, more positive control
- ✓ Operational force is transmitted effortlessly and instantly when required
- ✓ Works seamlessly with Suzuki's Lean Burn Technology to deliver remarkable fuel economy over a wide operating range
- ✓ The system can be configured with single, twin, triple even quadruple engine and for dual station installation



* Results vary depending upon operating conditions

LEAN BURN TECHNOLOGY

Fuel efficiency matters whether you're boating for pleasure or commercial purpose. Our Lean Burn Technology combined with Suzuki Precision Control, delivers an adequate fuel/air mixture to the engine. The system is designed to save fuel both at low speed and up into the cruising range.



For reliable, easy boat control that you desire, we are pleased to offer a wide range of Mechanical Remote Control Boxes. Simple design but carrying fully essential functions that you can count on in whatever conditions.

ULTIMATE

PRODUCT LINE-UP

BINNACLE-MOUNT REMOTE CONTROL BOX



DF8A - DF250



DF8A - DF250

FLUSH-MOUNT REMOTE CONTROL BOX



DF8A - DF250

SIDE-MOUNT REMOTE CONTROL BOX



KEY FEATURES

- ✓ Unique chamfer grip is elegant and eye-catching
- ✓ Intergrated design matches Multi-Function Gauges to give your console a harmonious view
- ✓ Lever has been fully ergonomically tested for most hand sizes
- ✓ Shifting is effortless and positive





PRODUCT LINE-UP For Suzuki Precision Control System

MAIN SWITCH PANEL (SINGLE IGNITION WITH EMERGENCY-STOP SWITCH)



CONTROL PANEL(FOR DUAL ENGINE AND FOR QUADRUPLE ENGINE)



CONTROL PANEL (FOR SINGLE ENGINE)



CONTROL PANEL (FOR TRIPLE ENGINE)



PRODUCT LINE-UP For Suzuki Mechanical Control System

IGNITION SWITCH PANEL (SINGLE IGNITION WITH EMERGENCY-STOP SWITCH)



EMERGENCY SWITCH PANEL



IGNITION SWITCH PANEL (DUAL IGNITION WITH EMERGENCY-STOP SWITCH)



PTT SWITCH PANEL



IGNITION SWITCH PANEL SINGLE IGNITION



LIGHTING SWITCH PANEL



KEY FEATURES

These panels are designed to bring all the controls for your outboards together whether you have a single rig or multiple outboards. Ergonomic buttons make it easy to start and stop your engine at the push of a button and control trim and tilt with ease. Multiple outboards can simply be synchronised for control from one set of buttons.





HIGH SECURITY

Suzuki original engine starting system features an immobilizer function for added peace of mind. IC access codes installed in the keyless fob and engine must match for the engine to start.

This prevents starting the engine with the wrong key making the system a good theft deterrent as well.

EASY OPERATION

Suzuki original engine starting system offers a variety of functions.

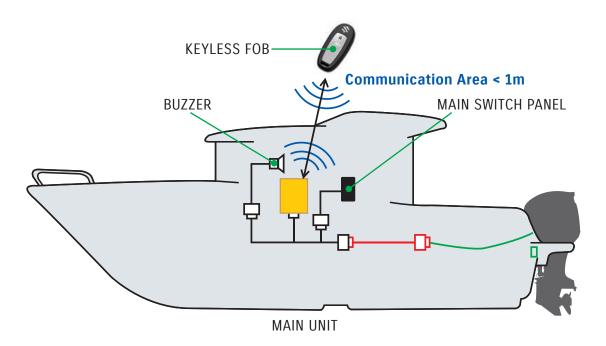
The keyless fob is easy to carry and all you need to enjoy stress-free engine start for greater boating pleasure.

One step ahead of the competition, the Suzuki Keyless Start System requires no mechanical key so the keyless fob remains safely in your pocket.

WATERPROOF FLOAT KEYLESS FOB

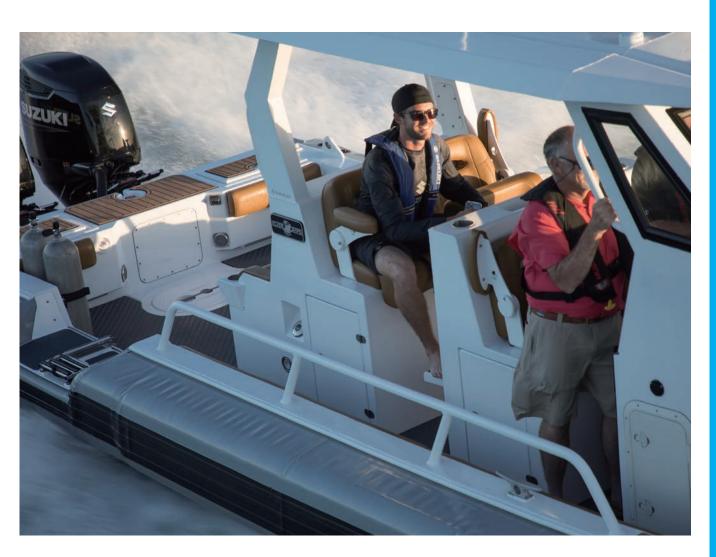
The easy to carry keyless fob remains safely in your pocket reducing risk of a lost key. The keyless fob is waterproof and floats so should it ever go overboard it is retrievable.



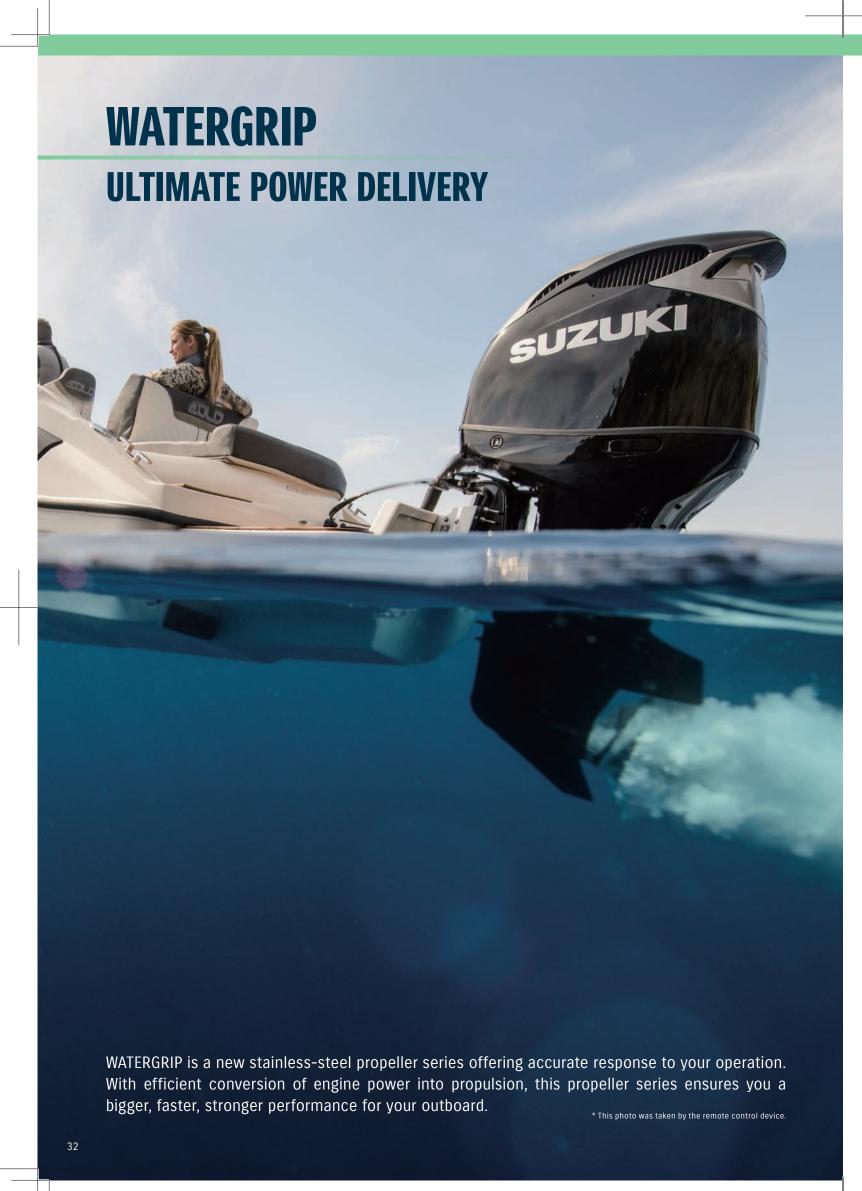




The system works by transmitting a unique access code from the keyless fob to the engine's starting system. Without the keyless fob, the engine won't start, making it a completely effective theft deterrent. And for total peace of mind, we've even designed to keyless fob to float, so if you're unlucky enough to drop it overboard, you can easily retrieve it.







THE NEW WATERGRIP RANGE







The WATERGRIP series will be the new standard for Suzuki propeller. The new interchangeable and square shared bush system is designed not only to be replaced easily and quickly when required, but also to accurately and efficiently convert power from the engine to thrust through the propeller.

WATERGRIP DUAL DF300B/DF325A/DF350A





New flagship models, the DF300B, DF325A, and DF350A introduced the Suzuki Dual Proppeller System, an industry-leading technology that is truly a revolution in innovation. Big engines demand more efficient conversion of engine output into propulsion.

With two contra-rotating propellers operating simultaneously, the conversion efficiency becomes greater as does stability, grip and manoeuvrability.



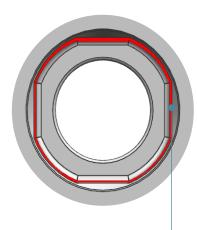
WATERGRIP SPORT DF150A-300AP





In addition to ease of maintenance and efficiency of power conversion, the WATERGRIP SPORT propellers feature a high rake blade design, which delivers excellent acceleration and exceptional top speed. These propellers are ideal for lightweight sport boats as they give remarkably stable thrust when turning which lead to superior maneuverability and ensure your exciting boating.

PROPELLER BUSH ADVANTAGES



- ✓ Better resistance over propeller slip
- ✓ Interchangeable bush

PROPELLER RANGE

MODEL	TYPE	MATERIAL	BLADE		IETER	 	CH	ROTATION*	DESCRIPTION	PART NUMBER
)F2.5	A520	Aluminum	3	7 3/8	mm 187.3	in 5 3/8	mm 136.5	RR		58110-97JA0-019
F4A	CC01	Aluminum	3	7 1 / 2	190.5	6	150 /	RR		F0110 01 II 0 010
F5A	C601 C611	Aluminum	3	7 1/2	190.5	6 1/2	152.4 165.1	RR		58110-91JL0-019 58110-91JM0-019
F6A	C701	Aluminum	3	7 1/2	190.5	7	177.8	RR		58110-91JN0-019
F8A	M701	Aluminum	3	9 1/4	235	7	177.8	RR		58100-89L00-019
F9.9A	M821	Aluminum	3	9 1/4	235	8	203.2	RR	THICK	58100-90L40-019
	M901 M911	Aluminum	3	9 1/4	235 235	9	228.6	RR RR	THICK	58100-89L20-019 58100-90L50-019
	M1001	Aluminum	3	9 1/4	235	10	254	RR	THICK	58100-89L60-019
	M1011	Aluminum	3	9 1/4	235	10	254	RR	THICK	58100-90L21-019
	M1101	Aluminum	3	9 1/4	235	11	279.4	RR		58100-89L70-019
F9.9B		Aluminum	4	10	254	5	127	RR	High thrust	58100-94JA1-019
F15A		Aluminum	4	10	254	7	177.8	RR	High thrust	58100-94JB0-019
F20A		Aluminum	3	9 1/4	235	7	177.8	RR	0	58100-89L00-019
T9.9A		Aluminum	3	9 1/4	235	9	228.6	RR	THICK	58100-89L20-019
T15A		Aluminum Aluminum	3	9 1/4	235	9	228.6 254	RR RR	THICK	58100-90L50-019 58100-89L60-019
		Aluminum	3	9 1/4	235	10	254	RR	THICK	58100-90L60-019
		Aluminum	3	9 1/4	235	11	279.4	RR		58100-89L70-019
		Aluminum	3	9 1/4	235	12	304.8	RR		58100-89L50-019
F0F 4	2011		•	10.611	000.0		000 0	20	Tillow	F0100 00077 777
F25A F30A	P911 P1001	Aluminum	3	10 1/4	260.3	9	228.6 254	RR RR	THICK	58100-96372-019
T25	P1001 P1011	Aluminum	3	10 1/4	260.3 260.3	10	254	RR	THICK	58100-91L40-019 58100-96472-019
T30	P1101	Aluminum	3	10 1/4	260.3	11	279.4	RR	THICK	58100-91L50-019
	P1201	Aluminum	3	10 1/4	260.3	12	304.8	RR		58100-91L20-019
	P1211	Aluminum	3	10 1/4	260.3	12	304.8	RR	THICK	58100-96482-019
	P1301	Aluminum	3	10 1/4	260.3	13	330.2	RR		58100-91L30-019
	P1311	Aluminum	3	10 1/4	260.3	13	330.2	RR	THICK	58100-96492-019
	P1401 P1501	Aluminum	3	10 1/4	260.3 260.3	14 15	355.6 381	RR RR		58100-95D01-019 58100-96462-019
	. 1001	7110111110111		10 1/1	200.0	10	001	, , ,		00100 00102 010
F40A	S900	Aluminum	3	11 1/2	292.1	9	228.6	RR		58100-88L03-019
F50A	\$1000	Aluminum	3	11 1/2	292.1	10	254	RR		58100-88L13-019
F60A T40	S1100 S1200	Aluminum	3	11 1/2 11 5/8	292.1 295.3	11 12	279.4 304.8	RR RR		58100-88L23-019 58100-88LA0-019
140	S1301	Aluminum	3	11 1/2	293.3	13	330.2	RR		58100-88LB0-019
	S1400	Aluminum	3	11 3/8	288.9	14	355.6	RR		58100-88L52-019
	S1500	Aluminum	3	11 1/4	285.8	15	381	RR		58100-88L62-019
	S1600	Aluminum	3	11 1/8	282.6	16	406.4	RR		58100-88L72-019
	S1700	Aluminum	3	11	279.4	17	431.8	RR		58100-88L83-019
	SS1600	Stainless	3	11 1/8	282.6	16	406.4	RR		58200-88L30-000
F50AV		Aluminum	3	14	355.6	9	228.6	RR		58100-87LG1-019
F60AV		Aluminum	3	14	355.6	11	279.4	RR		58100-87LH0-019
		Aluminum	3	13 3/4	349.3	12	304.8	RR		58100-87LJ0-019
		Aluminum	3	14	355.6	13	330.2	RR		58100-87LA0-019
		Aluminum Aluminum	3	13 7/8 13 3/4	352.4 349.3	15 17	381 431.8	RR RR		58100-87LB0-019 58100-87LC0-019
			Ŭ	-5 5/7			.01.0	7,11		55200 0.200 010
F70A		Aluminum	3	14	355.6	13	330.2	RR		58100-87LA0-019
F80A		Aluminum	3	13 7/8	352.4	15	381	RR		58100-87LB0-019
F90A F100B		Aluminum Aluminum	3	13 3/4	349.3 349.3	17 19	431.8 482.6	RR RR		58100-87LC0-019 58100-87LD0-019
11000		Aluminum	3	13 3/4	349.3	21	533.4	RR		58100-87LE0-019
		Aluminum	3	13 3/4	349.3	23	584.2	RR		58100-87LF0-019
		Aluminum	3	13 1/2	342.9	15	381	RR		58100-90JE0-019
		Aluminum	3	14	355.6	17	431.8	RR		58100-90JA0-019
		Aluminum	3	14	355.6	19	482.6	RR		58100-90JB0-019
		Aluminum	3	14	355.6	21	533.4	RR		58100-90JC0-019
		Aluminum	3	14	355.6	23	584.2	RR		58100-90JD0-019
		Stainless Stainless	3	13 7/8 13 7/8	352.4 352.4	15 17	381 431.8	RR RR		58200-92J40-000 58200-92J50-000
		Stainless	3	13 7/8	352.4	17	431.8	RR		58200-92J60-000
		Stainless	3	13 7/8	352.4	21	533.4	RR		58200-92J70-000
		Stainless	3	13 7/8	352.4	23	584.2	RR		58200-92J80-000
		Stainless	3	13 7/8	352.4	25	635	RR		58200-92J90-000

^{*}RR:Regular-Rotation model, CR:Counter-Rotation model



MODEL	TVDE	MATERIAL	DLARE	DIAM	IETER	PIT	СН	DOTATIONS	DESCRIPTION	DART NUMBER
MODEL	TYPE	MATERIAL	BLADE	in	mm	in	mm	ROTATION*	DESCRIPTION	PART NUMBER
DF100A		Aluminum	3	13 1/2	342.9	15	381	RR		58100-90JE0-019
DF115A		Aluminum	3	14	355.6	17	431.8	RR		58100-90JA0-019
DF115BG DF140A		Aluminum Aluminum	3	14	355.6 355.6	19 21	482.6 533.4	RR RR		58100-90JB0-019 58100-90JC0-019
DF140A DF140BG		Aluminum	3	14	355.6	23	584.2	RR		58100-90JD0-019
DITTODU		Stainless	3	13 7/8	352.4	15	381	RR		58200-92J40-000
		Stainless	3	13 7/8	352.4	17	431.8	RR		58200-92J50-000
		Stainless	3	13 7/8	352.4	19	482.6	RR		58200-92J60-000
		Stainless	3	13 7/8	352.4	21	533.4	RR		58200-92J70-000
		Stainless	3	13 7/8	352.4	23	584.2	RR		58200-92J80-000
		Stainless	3	13 7/8	352.4	25	635	RR CR		58200-92J90-000
		Stainless Stainless	3	13 7/8 13 7/8	352.4 352.4	17 19	431.8 482.6	CR		58200-92JA0-000 58200-92JB0-000
		Stainless	3	13 7/8	352.4	21	533.4	CR		58200-92JC0-000
		Stainless	3	13 7/8	352.4	23	584.2	CR		58200-92JD0-000
	W. t. a.t.	01 1		-		4.5		20		
DF150A	Watergrip	Stainless	3	16 16	406.4	15 17	381 431.8	RR RR		58700-93L80-000 58700-93L00-000
DF150AP DF175A	Watergrip Watergrip	Stainless Stainless	3	16	406.4	18 1/2	469.9	RR		58700-93L00-000 58700-93L10-000
DF175A DF175AP	Watergrip	Stainless	3	16	406.4	20	508	RR		58700-93L20-000
DF200	Watergrip	Stainless	3	16	406.4	21 1/2	546.1	RR		58700-93L30-000
DF200A	Watergrip	Stainless	3	16	406.4	23	584.2	RR		58700-93L40-000
DF200AP	Watergrip	Stainless	3	16	406.4	24 1/2	622.3	RR		58700-93L50-000
DF225	Watergrip	Stainless	3	16	406.4	26	660.4	RR		58700-93L60-000
DF250	Watergrip	Stainless	3	16	406.4	27 1/2	698.5	RR		58700-93L70-000
DF250AP	Watergrip	Stainless	3	16	406.4	17	431.8	CR		58800-93L00-000
DF300AP	Watergrip	Stainless	3	16	406.4	18 1/2	469.9	CR		58800-93L10-000
	Watergrip	Stainless	3	16	406.4	20	508	CR		58800-93L20-000
	Watergrip	Stainless	3	16	406.4	21 1/2	546.1	CR		58800-93L30-000
	Watergrip	Stainless Stainless	3	16 16	406.4	23	584.2 622.3	CR CR		58800-93L40-000 58800-93L50-000
	Watergrip Watergrip	Stainless	3	16	406.4	24 1/2	660.4	CR		58800-93L50-000 58800-93L60-000
	Watergrip	Stainless	3	15 1/2	393.7	17	431.8	RR		58700-96J00-000
	Watergrip	Stainless	3	15 1/4	387.4	19	482.6	RR		58700-96J10-000
	Watergrip	Stainless	3	15	381	21	533.4	RR		58700-96J20-000
	Watergrip	Stainless	3	14 3/4	374.7	23	584.2	RR		58700-96J30-000
	Watergrip	Stainless	3	14 1/2	368.3	25	635	RR		58700-96J40-000
	Watergrip	Stainless	3	14 1/2	368.3	27	685.8	RR		58700-96J50-000
	Watergrip	Stainless	3	15 1/2	393.7	17	431.8	CR		58800-96J00-000
	Watergrip	Stainless	3	15 1/4	387.4	19	482.6	CR		58800-96J10-000
	Watergrip	Stainless	3	15	381	21	533.4	CR		58800-96J20-000
	Watergrip	Stainless	3	14 3/4	374.7	23	584.2	CR CR		58800-96J30-000
	Watergrip	Stainless Stainless	3	14 1/2	368.3 368.3	25 27	635 685.8	CR		58800-96J40-000 58800-96J50-000
	Watergrip Watergrip	Stainless	4	15 1/4	387.4	18	457.2	RR		58700-93J00-000
	Watergrip	Stainless	4	15 1/4	387.4	20	508	RR		58700-93J10-000
	Watergrip	Stainless	4	15 1/4	387.4	22	558.8	RR		58700-93J20-000
	Watergrip	Stainless	4	15 1/4	387.4	24	609.6	RR		58700-93J30-000
	Watergrip	Stainless	4	15 1/4	387.4	26	660.4	RR		58700-93J40-000
	Watergrip	Stainless	4	15 1/4	387.4	20	508	CR		58800-93J10-000
	Watergrip	Stainless	4	15 1/4	387.4	22	558.8	CR		58800-93J20-000
	Watergrip	Stainless	4	15 1/4	387.4	24	609.6	CR		58800-93J30-000
	Watergrip	Stainless	4	15 1/4	387.4	26	660.4	CR		58800-93J40-000
	Watergrip Sport Watergrip Sport	Stainless Stainless	3	15 14 7/8	381 377.8	19 21	482.6 533.4	RR RR		58700-96L00-000 58700-96L10-000
	Watergrip Sport Watergrip Sport	Stainless	3	14 1/8	368.3	23	533.4	RR		58700-96L10-000 58700-96L20-000
	Watergrip Sport	Stainless	3	14 1/2	362	25	635	RR		58700-96L20-000
	Watergrip Sport	Stainless	3	14 1/4	355.6	27	685.8	RR		58700-96L40-000
DECOME	. 0 ,								-	
DF300B/	Watergrip Dual	Stainless	3	15 1/2	393.7	12	304.8		Front	58500-98LA0-000
DF325A/									Rear Front	58600-98LA0-000
DF350A	Watergrip Dual	Stainless	3	15 1/2	393.7	15	381		Rear	58500-98LB0-000 58600-98LB0-000
									Front	58500-98LC0-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	16 1/2	419.1		Rear	58600-98LC1-000
		0		15.415	200 -	10	1575		Front	58500-98L90-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	18	457.2		Rear	58600-98L91-000
	Waterdrin Duel	Ctainless	2	15 1/2	393.7	10 1/2	/, O.E. 2		Front	58500-98L60-000
	Watergrip Dual	Stainless	3	13 1/2	393.7	19 1/2	495.3		Rear	58600-98L61-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	21	533.4		Front	58500-98L00-000
		2.0033		,-					Rear	58600-98L01-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	22.5	571.5		Front	58500-98L10-000
	. 0	, , , , ,							Rear	58600-98L11-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	24	609.6		Front	58500-98L20-000
	-								Rear Front	58600-98L21-000 58500-98L30-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	25.5	647.7		Rear	58500-98L30-000 58600-98L30-000
									Front	58500-98L40-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	27	685.8		Rear	58600-98L40-000
	w	0		15.615	200 -		7		Front	58500-98L50-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	28.5	723.9		Rear	58600-98L50-000
	Waterdrin Duel	Ctainless	2	15 1/2	393.7	20	760		Front	58500-98L70-000
	Watergrip Dual	Stainless	3	10 1/2	393./	30	762		Rear	58600-98L70-000
									Front	58500-98L80-000
	Watergrip Dual	Stainless	3	15 1/2	393.7	31.5	800.1		Rear	58600-98L81-000

Consult to your Authorized Suzuki Dealer for details of the hardware required for each propeller installation.



GENUINE OIL & CHEMICAL

EMPOWERING YOUR OUTBOARDS TO PEAK PERFORMANCE



By enhancing and drawing out the best performance - ECSTAR will give you a Suzuki experience

PRODUCT LINE-UP





ECSTAR V5000 10W-40 **MINERAL**

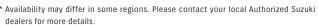




GEAR OIL

ECSTAR OBM GEAR OIL





ENGINE OIL

ECSTAR V7000 10W-40

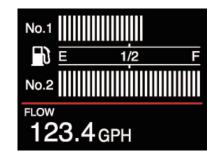
SEMI SYNTHETIC







KEY FEATURES



Fuel Savings

The Genuine Formulation provides the high performance and help to improve fuel economy.



Outstanding Engine Protection

The innovative lubricating technology achieves thermal stability, which contributes to the ultimate engine protection even when starting engine in cold climates.



Clean Engine for Longer Life Cleaning performance helps to prolong the engine life.

exceed these requirements.

that others could not!



ENJOY SUZUKI COLLECTION

ULTIMATE OUTBOARD MOTOR

For a full range of line-up, please contact your local Authorized Suzuki dealers.



ECSTAR Bear (White/Blue) H150mm*W140mm*D130mm



DF350A Rubber Key Ring H60mm*W28mm*D11mn





ECSTAR Towel (White/Blue) H400mm*W1,100mm



H60mm*W28mm*D11mm



ECSTAR One Touch Thermo Bottle (480ml) H235mm*W66mm*D66mm



ECSTAR Yunomi H105mm*W73mm*D73mm



ECSTAR Folding Fan

UTILITY EQUIPMENT

ALL YOU NEED IS SUZUKI GENUINE ITEMS



WATER SEPARATOR / FUEL FILTER



WATER SEPARATOR / FUEL FILTER ELEMENT SET







RIGGING TUBE

FUEL TANK



FUEL HOSE



ENGINE COVER







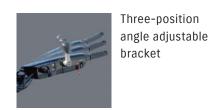
The integrated Multi-Function Tiller Handle Kit utilises the functions that are essential for your drive. Tachometer, warning indicator, Troll Mode switch, power trim and grip friction adjuster together with normal tiller handle function.



Tachometer with warning indicators



Froll mode switch activates Suzuki Troll Mode System and controls RPM from idling engine speed up to 1200rpm at every 50rpm





Power trim and tilt switch and throttle grip friction adjuster

SUZUKI GENUINE FUEL TANK ADAPTER





SAFETY CORD

product information, price, availability and all business terms. **STEERING KIT**



STEERING SYSTEM/JOYSTICK

BAYSTAR

BAYSTAR OUTBOARD SYSTEM - HK4200A-3								
System comprises:								
BayStar Helm 1.4cu" (22.94cc)	HH4314-3							
BayStar Compact Cylinder	HC4645-3*							
20ft(6096mm) "cut to length" tubing kit	HT4420H							
2 x litre SeaStar hydraulic oil	HA5430							

* Note: 115-140hp (85.8 kw - 104.4 kw) four stroke 2001 to

BAYSTAR

Order taking, delivery, technical support and warranty for these products are handled by SeaStar Solutions. Please consult your local SeaStar Solutions distributor or dealer if you need more detail for

BAYSTAR PLUS

RECOMMENDED STEERING KITS

BAYSTAR OUTBOARD SYSTEM - HK4500	0A-3				
System comprises:					
BayStar Plus Helm 1.4cu" (22.94cc)	HH4514-3				
BayStar Compact Cylinder	HC4645-3*				
2 x litre SeaStar hydraulic oil	HA5430				
Note: 1 x SeaStar hose kits must be orde	red separately				

* Note: 115-140hp (85.8 kw - 104.4 kw) four stroke 2001 to

SEASTAR

OUTBOARD MOTOR

SEASTAR

SEASTAR OUTBOARD SYSTEM - HK	6400-3
System comprises:	
SeaStar Helm 1.7cu" (27.80cc)	HH5271-3
SeaStar Pivot Cylinder	HC5345-3*
2 x litre SeaStar hydraulic oil	HA5430
Note: 1 x SeaStar hose kits must be	ordered separately

* Note: 115-140hp (85.8 kw - 104.4 kw) 1996 only requires HC6348, 40-140hp (29.4 kw - 101.4 kw) four stroke 1998 to current model and 90hp (67.1 kw) four stroke 2003 to current model require HC5358.

Optimus 360 Joystick Control

SEASTAR



SEASTAR POWER ASSIST

SEASTAR OUTBOARD POWER ASSIST SY	YSTEM						
System comprises:							
SeaStar Helm 1.7cu" (27.80cc)	HH5271-3						
SeaStar Pivot Cylinder	HC5345-3*						
2 x litre SeaStar hydraulic oil	HA5430						
SeaStar 12v Power Assist Unit	PA1200-2						
Note: 2 x SeaStar hose kits must be order	red separately						

^{*} Note: 115-140hp (85.8 kw - 104.4 kw) 1996 only requires HC5348, 40-140hp (29.4 kw - 101.4 kw) four stroke 1998 to current model and 90hp (67.1 kw) four stroke 2003 to current model require HC5358.

SEASTAR



TOURNAMENT CYLINDER AND ADJUSTABLE TIE BAR

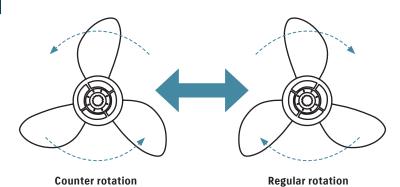
	CYLINI	DER	HARDWA	RE KIT			TIE BAR	
CONFIGURATION	PART NO.	QTY.	PART NO	QTY.	PART NO.	QTY.	CENTRE TO CENTRE DISTANCE (IN)	CENTRE TO CENTRE DISTANCE (MM)
Twin Engine -					H06821		25.0 - 25.6	635 - 650
Single Cylinder	HC6845	1	HA6802	1	H06822	1	25.7 - 30.6	653 - 777
(STBD)					H06823		30.7 - 39.0	780 - 991
					H06820		25.0 - 26.5	635 - 673
Twin Engine -	HC6845	2	HA6804	1	H06821	1	26.6 - 29.3	676 - 744
Dual Cylinder	HC0043	2	HA0004	1	H06822	1	29.4 - 34.2	747 - 869
					H06823		34.3 - 43.0	871 - 1092

SUZUKI SELECTIVE ROTATION



CONVERTS DF150AP/175AP/200AP/250AP/300AP TO COUNTER ROTATION SPECIFICATION

44



SELECTIVE ROTATION CONNECTOR

If you have a large boat with two engines, you generally need to pair a standard rotation outboard with a counter rotation model. Our Suzuki Selective Rotation system allows you to select the rotation direction on Suzuki outboards. So instead of buying a dedicated counter rotation model, all you need is a standard outboard, a suitable propeller, and our simple Selective Rotation Connector.

A HIGHER LEVEL OF ENGINEERING **SOPHISTICATION** Manufacturer compatible Pump Control Module (PCM) Optimus 360 Optimus EPS + Jovstick =

APPLICATION CHART

	DF350A	DF325A	DF300B	DF300AP	DF250AP	0 10 10 10 10 10 10 10 10 10 10 10 10 10	01230	DESSE	DF223	0000	00210	DF200AP	0000	DIZOUA	DF175AP	7	HE/110	DF150AP	400	DF150A
ITEM Applicable for Remote Control	DF350A	DF325A	DF300B	DF300AP	DF250AP	DF250T	DF250Z	DF225T	DF225Z	DF200T	DF200Z	DF200AP	DF200AT	DF200AZ	DF175AP	DF175AT	DF175AZ	DF150AP	DF150AT	DF150AZ
SUZUKI MULTI-FUNCTION DISPLAY (SMD)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SUZUKI MULTI-FUNCTION GAUGE (SMG4)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SUZUKI KEYLESS START SYSTEM	1	1	1	1	1							1	1	1	1	1	1	1	1	1
ANALOGUE INSTRUMENT						1	1	1	1	1	1		1	1		1	1		1	1
SUZUKI PRECISION CONTROL (SPC)	1	1	1	1	1							1			1			1		
MECHANICAL REMOTE CONTROL						1	1	1	1	1	1		1	1		1	1		1	1
TROLL MODE SWITCH PANEL	1	1	1	1	1							1	1	1	1	1	1	1	1	1
STEERING																				
TILLER HANDLE KIT																				
DUAL-ENGINE TIE-BAR						1	1	1	1	1	/	1	1	1	1	1	/	/	1	1
STEERING EXTENSION KIT						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DRAG-LINK KIT						1	1	1	1	1	1	1	✓	1	1	1	1	1	1	1
ELECTRICAL PARTS																				
COUNTER SELECT CONNECTOR				1	1							1			1			1		
BATTERY ISOLATOR LEAD SET	1	1	1	1	1							1	1	1	1	1	1	1	1	1
ELECTRIC STARTER KIT (Only For MZ Type)																				
BATTERY CHARGING KIT (Only For MZ Type)																				
RECTIFIER SET (Only For MZ Type)																				
RECEPTACLE KIT (Only For MZ Type)																				

DF140BTG	DF140BZG	40.514	DF140A	DF115BG		DF115BZG DF115A		DF100A	DF100B	DF90A	DF80A	DF70A	DF60A	DF60AV	DF50A	DF50AV	DF40A	40024	DrsuA	4 10 10	DF25A		DFZUA	DF15A	200	DF9.9B	DF9.9A	DF8A	DT40	DT30
DF140BTG	DF140BZG	DF140AT	DF140AZ	DF115BTG	DF115BZG	DF115AT	DF115AZ	DF100AT	DF100BT	DF90AT	DF80AT	DF70AT	DF60AT	DF60AV	DF50AT	DF50AV	DF40AT	DF30AR	DF30AT	DF25AR	DF25AT	DF20AR	DF20AT	DF15AR	DF9.9BR	DF9.9BT	DF9.9AR	DF8AR	DT40WR	DT30R
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
1	1	1	1	1	1	1	1	1	1	1	1	1																		
		1	1			✓	1	1	1	1	✓	1	1	1	1	✓	1	✓	1	1	1	1	1	1	1	1	1	✓	1	1
1	1			1	1																									
		1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
✓	✓	1	1	1	1	✓	1	1	1	✓	✓	1	✓	✓	1	✓	✓													
		,		,	,	1	,	1	1	✓	√	1	√	√	1	1	1													
1	1	1	1	1	1	1	1																							
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	,	•	•	•	•	,	•	•	•	•	•	•	•	•	•	'	•	,	•	•	'	v	•	•	•	•	v	'		
																		1		1		1		1	1		/	/		
																		1		1		1		1	1		1	/		
																		1		1		1		1	1		1	1	1	1
																		1		1		1		1	1		1	1	1	1

		DF70A DF60A		DF60AV DF50A		DrouA	DF50AV DF40A		DF40A	DF30A			DF25A			DF20A		DF15A		
ITEM Applicable for Tiller Handle	DF90ATH	DF70ATH	DF60ATH	DF60AQH	DF60AVTH	DF50ATH	DF50AQH	DF50AVTH	DF40AQH	DF40ATH	DF30A	DF30ATH	DF30AQH	DF25A	DF25ATH	DF25AQH	DF20A	DF20ATH	DF15A	DF15ATH
STEERING																				
REMOTE CONTROL ATTACHING KIT											1	1	1	1	1	1	1	1	1	1
STEERING-BRACKET ATTACHMENT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ELECTRICAL PARTS																				
ELECTRIC STARTER KIT (Only For MZ Type)											1		1	1		1	1		1	
BATTERY CHARGING KIT (Only For MZ Type)											1		1	1		1	1		1	
RECTIFIER SET (Only For MZ Type)											1		1	1		1	1		1	
RECEPTACLE KIT (Only For MZ Type)											1		1	1		1	1		1	

DF9.9B		DF9.9A	DF8A	DF6A	DF5A	DF4A	DF2.5	6	DLT#0	DT30	DT 25	, L	DFLDA	40	Drs. 3A
DF9.9B	DF9.9ВТН	DF9.9A	DF8A	DF6A	DF5A	DF4A	DF2.5	DT40W	DT40WK	DT30	DT25K	DT15A	DT15AK	DT9.9A	DT9.9AK
1	1	1	1	1	1	1		1	1	1	1				
1	1	1	1					1	1	1	1				
1		1	1												
1		1	1	1	1	1									
1		1	1	1	1	1		1	1	1	1				
1		1	1	1	1	1		1	1	1	1	1	1	1	1

