## LOWRANCE

### Suzuki<sup>®</sup> Engine Connection for NMEA 2000<sup>®</sup> Messages

Many Suzuki outboard engines have the ability to output engine data to a NMEA 2000<sup>®</sup> network. This output from the engine can be displayed on Navico Multi-Function Displays such as the Lowrance HDS, Lowrance LMF-200 and 400 gauges, the Simrad NSS/NSE/NSO or the B&G Zeus. The vessel must be equipped with an existing or new NMEA 2000<sup>®</sup> network as pictured below.



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Suzuki	DF40 - 60	DF70 – 90	DF115 - 250	DF300
RPM	✓	✓	✓	√
Alternator Voltage	✓	✓	✓	✓
Engine Hours	✓	✓	✓	✓
Engine Temperature	✓	✓	✓	✓
Engine Trim	✓	✓	✓	✓
Fuel Rate	✓	✓	✓	✓
Fuel Used	✓	✓	✓	$\checkmark$
Seasonal Fuel Used	✓	✓	✓	$\checkmark$
Transmission Gear				$\checkmark$
Trip Fuel Used	✓	✓	✓	$\checkmark$
Water Pressure		✓		✓
Water Speed		✓		✓

2004 & newer: DF200-DF250; 2006 & newer: DF40-DF300

\*Features only available on 2009 & newer DF70A-90A.

**Engine Connections** 

All cables are available direct from your Suzuki dealer.

Engine Model	Engine Interface cable*	Engine Interface Adapter	Location of Connection
DF40-250 (Pre 2008)	990C0-88134	990C0-88141	Under engine cowling
DF40-250 (2008-Present)	990C0-88134	None	Wiring harness at helm <sup>++</sup> ‡
DF300 (Single Engine)	990C0-88134	990C0-88131†	Wiring harness at helm <sup>++</sup>
DF300 (Dual Engine)	990C0-88134	990C0-88132†	Wiring harness at helm <sup>++</sup>
DF300 (Triple Engine)	990C0-88134	990C0-88133 <sup>+</sup>	Wiring harness at helm <sup>++</sup>

\* one engine interface required per engine

<sup>†</sup>Only one DF300 engine adapter is needed, use the appropriate adapter for the number of engines on the vessel.

<sup>++</sup> The engine wire harness must be connected to digital data output under cowling. This should be performed by your Suzuki dealer, referencing Suzuki Marine Division Bulletin No. 004 from August 15<sup>th</sup>, 2007.

‡If using analog instruments as well as the NMEA 2000 Engine Interface, the Suzuki Reverse K8 Adapter, Suzuki part number 990C0-88141, must be connected under the cowling and the engine interface connected to it.

For Engines with adapter cables that were sold/installed 2009 and prior a Network adapter cable will be required to convert from the old "blue" Navico NMEA 2000<sup>®</sup> network to the current "red/black" NMEA 2000<sup>®</sup> network. These network adapter cables are available from your Navico dealer/distributor. To adapt a blue connector engine adapter to the current red/black network use: 000-0127-04

To adapt a red/black connector unit to an existing blue network use: 000-0127-05

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#### MFD Setup

After the physical connections have been made the user can now setup the unit to display the engine data.

On HDS perform the following steps:

- 1) Vessel Setup: Press the Menu key twice to access the system menu, select the Fuel menu then Vessel Setup...and press Enter. (Figure 1.A)
  - a. Change the Vessel Setup to match the Engine/Tank configuration of the vessel. (Figure 1.B)

Vessel configuration 2

Tank Sizes (gal)

- b. Set the Tank Size. (Figure 1.C)
- c. Select Save to retain these settings.





Figure 1.A

Figure 1.B

- With the Engine powered on Confirm that it shows up in the device list.
  Press the Menu key twice to access the system menu, select the
  - Press the Menu key twice to access the system menu, select the Network menu then Device List and press Enter. (Figure 2.A)
    - i. You should now see your engine listed along with any other devices that are connected to your network.
  - b. From the Device List you can highlight the Engine and press enter to see and the Data that is available from the Engine.
    - i. Scroll to the Data tab and press Enter.
- 3) Confirm that the data sources are set for the Engine.
  - a. Press the Menu key twice to access the system menu, select the

Network menu then Data Sources and press Enter.

- i. From here select Engine and press Enter. (Figure 3.A)
- ii. Auto Configure the Network. In most cases this will set the data sources to the correct location.
- iii. Engine Instances (port/center/starboard) can be set by Suzuki or by using Suzuki SMIS gauges. (Figure 3.B)
  - If the engine instances are not set by Suzuki then you may need to manually configure the engine interface (Port/Center/Starboard) in the device list.
  - 2. Select the Engine from the device list and press Enter
  - 3. Select Configure and press Enter
  - 4. Select the engine location
  - 5. Select the year of the Engine
  - 6. Select the engine type or model



Center

0060.0

Cance

LOWRANCE®



Calibrate

#### Figure 2.A

SUZUKI Engine Simulator - Device Information				
Device: Name:	SUZUKI Engine Simulator			
Manufacture:	Lowrance			
Software Version	1.1.9			
Model:	3.0.0			
Address:				
S/N:	1190174			
Instance:		Configure		
Status:	ОК			
		Alarms		
		Calibrate		
Į		Data		
		Close		

#### Figure 3.A



Figure 3.B

Suzuki<sup>®</sup> Engine Connection for NMEA 2000<sup>®</sup> Messages

- 4) Now Data overlays and the Info gauge screen can be set up. (Figure 4.A)a. Reference the manual for your MFD to set overlays and edit the
  - gauge screen.

SUZUKI Engine Simulat	or - Device configuratio	
Configuration		
Device	SUZUKI Engine Simulat	tor
Location:	Starboard -	
Year:	Port	
Engine type:	Starboard Unknown	
Advanced Options		
Instance	1	Unconfigure
	Reset Fuel Flow.	Reset Trim Calib.
		Close

Figure 4.A

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