

NMEA 2000 ENGINE INFORMATION

Suzuki, Yamaha, Evinrude

Suzuki

Suzuki has engine models compatible with NMEA 2000 that can be configured using our head units and gauges. An engine interface cable (EP-20) is required to connect the Suzuki engines into a network.

2008 and later Suzuki engines, excluding the DF 300, will also require the Suzuki K8 adapter.

The DF300 models will require a Suzuki DF300 adapter.

Suzuki interface cable (EP-20) and adapter cable part numbers:

- **120-06** Suzuki Eng Intrfce Cbl –BL 10ft
- **120-10** Suzuki Eng Intrfce Cbl –BL 10ft (OEM 6PK)
- **120-55** Suzuki Eng Intrfce Cbl – RD 10ft
- **120-56** Suzuki Eng Intrfce Cbl – RD 10ft (OEM 6PK)
- **120-67** Suzuki DF300 Single Engine Adapter (OEM)
- **120-68** Suzuki DF300 Dual Engine Adapter (OEM)
- **120-69** Suzuki DF300 Triple Engine Adapter (OEM)
- **120-80** Suzuki K8 Adapter

Suzuki engine models compatible with NMEA 2000 using the EP-20 interface cable:

- **DF 40:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 50:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 60:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 70:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 90:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 115:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 140:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 150:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 175:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 200:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 225:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 250:** *2008 and later models require Suzuki K8 Adapter 120-80*
- **DF 300:** *Requires Suzuki DF300 adapter; single, dual, or triple depending on the number of engines.*

The Suzuki Engine interface can provide the following information over the NMEA 2000 network:

- Engine RPM
- Alternator Voltage
- Engine Hours
- Fuel Flow
- Engine Trim
- Fuel Used
- Trip Fuel Used
- Seasonal Fuel Used
- Speed over water (DF300 Only)
- Water Pressure (DF300 Only)
- Current Gear (DF300 Only)
- Standard Diagnostics
 - Overheat
 - Low Oil Pressure
 - Over Rev
 - Low Battery Voltage

Suzuki Engine Interface Configuration

The **LMF-200** and **LMF-400** can support up to three engines with one engine interface for each engine. If you have one configured engine interface, it will be displayed as Eng Int. If you have three configured fuel flows, they will appear as Port Eng, Cen Eng and Stbd Eng. When the interface is unconfigured it will be shown as UnCfg Eng. Each fuel flow has an internal menu with the following options: Unset Engine, Change Engine, Fuel Warning, Reset and Reset Fuel Calibration and Reset Trim Calibration.

NOTE:

If, after configuring, unconfiguring or reconfiguring an engine interface, it is not shown on the Bus Devices list, you will have to refresh the list. To do this, let the menu time out and press **MENU**. Select **SYSTEM SETUP** and press **MENU**. Highlight **B. DEVICES** and press **MENU**. The Engine Interface will be listed with its new configuration setting.

To configure Suzuki Engine Interface: LMF-200

1. Press **MENU**, use the **UP** and **DOWN** keys to select **SYSTEM SETUP** and press **MENU**.
2. Highlight **B. DEVICES** and press **MENU**. The Bus Devices list will appear.
3. Select **UNCFG ENG** and press **MENU**. The following message will appear: *Hit Menu to Cfg Eng Int.* Press **MENU**.
4. The Suzuki Engine Model menu will appear with the following options: DF40, DF50, DF60, DF70, DF90/115, DF140, DF150, DF175, DF200/225, DF250 and DF300.

5. Select your Suzuki model engine from the list and press **MENU**. The Select Engine menu will appear with up to three options: Port, Center and Starboard. (If you have a single-engine configuration, you will not be taken to the Select Engine menu. You will be taken back to the main display.) 6. Select the desired engine and press **MENU**. You will be taken back to the Bus Devices list where the engine interface will be shown with its new configuration

NOTE:

If the engine interface you just configured is not shown on the Bus Devices the list, you will have to refresh the list. Let the Bus Devices list time out, then access it again.

To configure a Suzuki Engine Interface: LMF-400

1. Press **MENU**, use the **UP** and **DOWN** keys to select **SYSTEM SETUP** and press **ENTER**.
2. Highlight **BUS DEVICES** and press **ENTER**. The Bus Devices list will appear.
3. Select **UNCFG ENG INT** and press **ENTER**. The following message will appear: *Press Enter to Configure Eng Intrfc.*
4. Press **ENTER**. The following list of Suzuki engine models will appear: DF40, DF50, DF60, DF70, DF90/115, DF140, DF150, DF175, DF200/225, DF250 and DF300.
5. Select your engine model from the list and press **ENTER**. The Select Engine menu will appear with up to three options (Port, Center and Starboard), depending on your engine-tank configuration. If you chose a single engine configuration during Boat Setup, you will be taken back to the main display.
6. Highlight the engine connected to your engine interface and press **ENTER**. If, for example, you select the Port, the following message will appear: *Press ENTER to change to Port Engine.*
7. Press **ENTER**. You will be taken back to the main display.

Yamaha

Yamaha has engine modules that are compatible with our NMEA 2000 network. An adapter cable will be needed to connect the Yamaha engine into the network.

Yamaha Engine adapter cable part numbers:

- 120-311 Yamaha Adapter Cable-BL
- 119-62 Yamaha Adapter Cable-BL (OEM 6-PK)
- 120-37 Yamaha Adapter Cable-RD
- 119-90 Yamaha Adapter Cable-RD (OEM 6-PK)

Yamaha engines compatible with NMEA 2000:

- Four Strokes:
 - F50
 - F60
 - F75
 - F90
 - F115
 - F150
 - F200
 - F225
 - F250

- Two Stroke HPDI models:
 - Z or VZ models
 - 150
 - 200
 - 225
 - 250
 - 300

NMEA 2000 Yamaha Engines output the following standard data:

- Engine RPM
- Boost Pressure
- Engine Trim: 2006 and later
- Oil Pressure
- Engine Temp: 2006 and later
- Alternator Voltage
- Fuel Rate
- Hours Used
- Water Pressure
- Fuel Economy – if a speed source is on the network
- Some Diagnostics – not sure which ones as they do not publish this information

Yamaha Engines are configured over the network by their (Yamaha proprietary) gauges, using proprietary messages. They cannot be configured by Lowrance gauges or head units.

Evinrude

Evinrude has engine models that can be connected to a NMEA 2000 network with an adapter cable.

Evinrude Engine adapter cables:

- 120-30 Evinrude Adapter Cable – BL 10'
- 119-39 Evinrude Adapter Cable – BL 10' (OEM 6Pk)
- 119-91 Evinrude Adapter Cable – BL 15'
- 119-921 Evinrude Adapter Cable – BL 15' (OEM 6Pk)
- 120-62 Evinrude Adapter Cable – RD
- 127-27 Evinrude Adapter Cable – RD (OEM 6Pk)

Evinrude engines compatible with NMEA 2000:

- 2005 Compatible Engines
 - 200HO
 - 225
 - 225HO
 - 250
- 2006 Compatible Engines
 - 200
 - 200HO
 - 225
 - 225HO
 - 250
- 2007 Compatible Engines
 - 115
 - 150
 - 150HO
 - 175
 - 200
 - 200HO
 - 225
 - 225HO
 - 250

NMEA 2000 Evinrude Engines output the following standard data:

- Battery Status
- RPM
- Engine Tilt/Trim
- Engine Temp
- Alternator Voltage
- Fuel Rate
- Total Engine Hours
- Percent Engine Load
- Atmospheric Pressure

- Boost Pressure
- Oil Pressure
- Oil Temp
- Water Pressure
- Fuel Pressure
- Engine Torque
- Diagnostics

Evinrude E-TEC Engines are configured by connecting a computer to the engine through a serial port and running a configuration program on the computer that sets up the engine. They cannot be configured by Lowrance gauges or head units.