

EM1005X *Engine Interface Module*



Installation & User Manual

Replaces i8305 used on LP/LY2/JH Yanmar Engines

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Table of Contents

Product Overview	4
Components	4
Installing the System.....	4
Making the Connections	4
Engine Interface Module.....	5
Pre-power Check List.....	6
Power-up & Initial Configuration.....	6
Dock Side Checkout.....	6
System Options	6
Ordering the System	7
Installation Notes:.....	9

Product Overview

The EM1005 Product is designed as a Plug 'N' Play data monitoring system for Yanmar Mechanical Engines that replaces the Teleflex i8305. Review the "Ordering the System" section for proper unit configuration.

Components

EM1005X-5X	EM, Eng Interface Module	1 per engine
MN10009-5X	Data Sheet, EM1005X	Optional
MN10008-5X	Manual, Install / User, EM1005X	1 per system
M701X	Display, Single or Dual (replaces Teleflex i5601)	Optional
1000005-XX	Buzzer, 12 volt	Optional

XX: Denotes part number option for length, position or model.

Installing the System

CAUTION

The safety messages that follow have **CAUTION** level hazards.

ALWAYS ensure the power supply is OFF and battery cables are disconnected before you make any electrical connections.

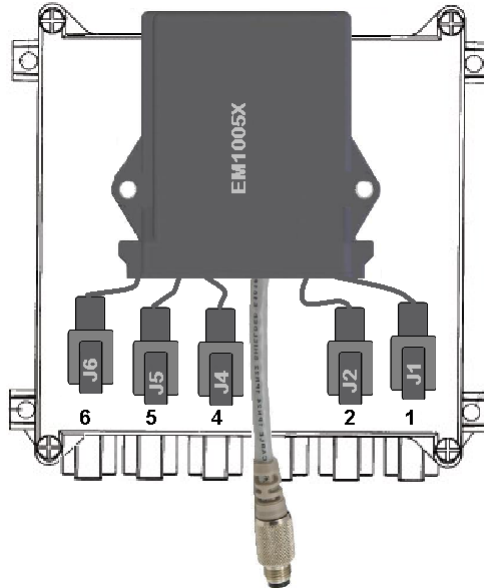
Before removal of the i8305 verify that the mating connectors are clearly marked from P1 to P6. If not, label each connector prior to disconnecting from the i8305.

Making the Connections

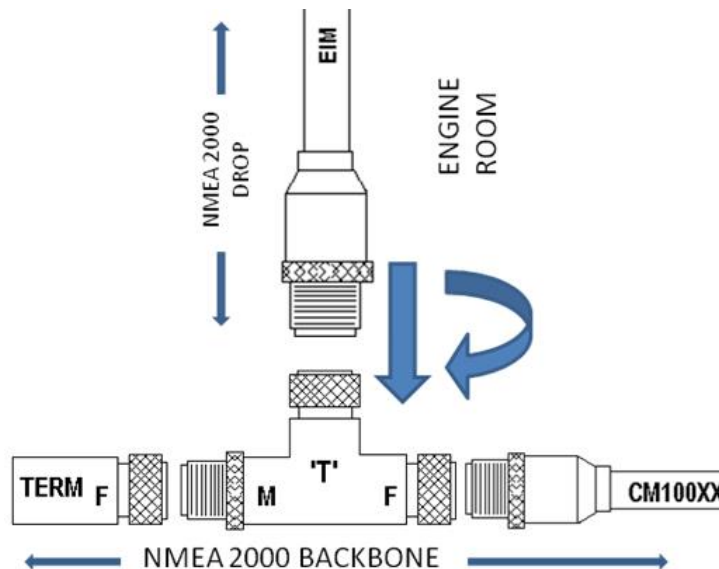
Each EIM connector is marked with a connector designator, J1, J2, J4, J5 and J6. Match the labels with the corresponding i8305 boat harness connector P1, P2, P4, P5 and P6. The NMEA connection is made directly to the NMEA 2000 Network via the Communications 'T' so P3 is not used. **Care must be taken as all of the connectors are interchangeable and must be mated based on their designation.** The supply power MUST be OFF when interconnecting the system.

Engine Interface Module

1. Before removal of the i8305 verify that the mating connectors are clearly marked from P1 to P6. If not, label each connector prior to disconnecting from the i8305.
2. Mount the EIM in the same location as the i8305 using the appropriate mounting hardware for the mounting surface/structure with two user supplied fasteners.
3. Mate the 5 engine interface connectors marked J1, J2, J4, J5, J6 routing the harness toward the mating connectors.



4. Add the EIM drop cable as shown below. Remove the communications cable from the 'T' connector that was mounted in P3 location. Connect the NMEA communications cable from the EM1005x module. Secure the harness using appropriate tie straps or cable clamps.



Pre-power Check List

- Wires are free from abrasive and puncturing materials.
- Network connections appropriately strain relieved and 'T' connectors mounted with screw or tie wrapped to secure surface.
- Harnesses are properly dressed and strain relieved.
- Check optional connection for fluid level input. If not used secure the harness using proper harness strain relief

Power-up & Initial Configuration

With final checks complete, turn on the engine and house battery switches. At the main station, turn "ON" the engine ignition via the rocker or keyswitch depending on panel type installed. Turn switch to "On" position. Check the following and repeat for additional engines.

- Alarm sounds for approximately 2 seconds.
- All displays light up starting with the splash screen.
- The engine data should be present on the displays (i.e. Tachometer is 0 RPM)

Dock Side Checkout

- System alarm check sounded when ignition was turned "On".
- With engine running, verify that the display(s) are showing proper engine data.

System Options

The EM1005x Product is designed as a Plug 'N' Play data monitoring system for Yanmar Mechanical Engines that replaces the Teleflex i8305 but if it is used with the M700 display additional features are available.

- Sensor 2 input can be configured for Fuel, Water, Waste or Rudder Angle.
- A maintenance timer is enabled.

Ordering the System

The i8305 is configured using DIP switches for determining the EIM location; Port or Starboard and configuring the tachometer pulses per revolution (PPR) to match the engine flywheel teeth count. Another parameter stored is the engine hours. Should the EM1005x be ordered without the M701x Display, this data must be defined when placing the order.

See Table Below:

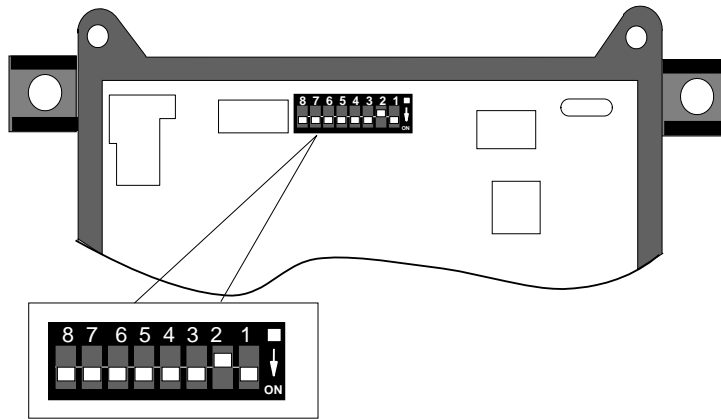
ENGINE POSITION:	_____	Port or Starboard
ENGINE HOURS:	_____	xxx.x Hours
SENDER 2 INPUT:	_____	Defaults: Fuel Tank 3 for Port Fuel Tank 4 for Starboard (Can be configured via M701x for Water, Waste, Rudder Angle or "Not Used".)
FLYWHEEL COUNT:	_____	129, 127, 117, 116 or 97
		LY2 129 LP 117 JH4 116 JH4T 127 YM 97

Note 1. A charge alarm will activate the EM1005x alarm output but may not be present on the TFX i5601 display.

Note 2. Boost Alarm (over boost) is not available.

Reading the configuration settings of the i8305 requires removing the top cover and noting the DIP switch settings. See Table below.

	Switch 5	Switch 4	Switch 3	Switch 1
PPR 97	Off	Off	Off	X
PPR 114	Off	Off	On	X
PPR 116	Off	On	Off	X
PPR 117	Off	On	On	X
PPR 127	On	Off	Off	X
PPR 129	On	Off	On	X
PORT				Off
STBD				On



i8305 Dip Switch Locations and Settings

Installation Notes:

Existing Installation: _____

 Boat Type: _____

 Engine Model: _____

 System Voltage: _____

Number of Engines: _____

Number of Stations: _____

 USA or European
 Install: _____

Display / Gauge Type: _____

 Fluid Tanks: _____

 Existing Network: _____

Trim Measurement: _____

 Engine Hours: _____

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