

Teleflex Marine Instruments

Summary of Instrument Types:

Ammeters:

Ammeters indicate current flow to/from the battery. Direct Reading types do not require a shunt. External shunt types (*Heavy Duty*) require use of correct shunt as shown under Sender Code Z in this catalog, along with wire gauge/length as specified in instructions furnished with gauge. Both types may require some revisions to existing wiring. Use as Single Station only. Suitable for 12 or 24 volts.

Charging System Indicators:

Charging System Indicators display a color-band and numerical indication of Battery Voltage/Charging Rate. No sender required.

Engine Synchronizer Gauges:

Engine Synchronizer Kit installation consists of indicator gauge (2"), module, and harness. *Gauge only available in Premier, Lido, Red International and Heavy Duty. Combine with appropriate module/harness.*

Hourmeters:

Hourmeters are available in round (fits hole for standard 2" gauge) or rectangular style. These indicate operating hours and are normally connected to the ignition switch. *Teleflex Marine's universal round and rectangular hourmeters are waterproof.*

Pressure Gauges:

Various ranges are offered.

- **Electrical units** require a matching sender. Sender variations include resistance, pressure range, and single/dual station versions. See the Sender Code listed with a specific gauge in the Application Guides.
- **Mechanical units** are for oil pressure and require piping from port on engine to 1/8" male pipe thread on rear of gauge. *In Heavy Duty only.*

- **Outboard Water Pressure Kits** include mechanical pressure gauge and tubing/fittings for connection to engine. Refer to the Application Guides to select correct unit for your engine.

Speedometers:

Both conventional pitot (water pressure/bourdon tube) and electric (electrical movement/paddle wheel sensor) types are available.

- **Pitot type** kits include Speedometer head, pitot tube pick up, and 20 feet of tubing to connect the two.
- **Electric** kits include speedometer head and transom-mount paddle wheel sensor with 20' electric cable and internal calibration for initial setup.
- **Competition Ski Speedo Kits** also include a dash-mounted calibration adjustment. Electric units function in forward or reverse boat operation. *(Red International only.)*

Tachometers:

Several types of electric tachometers (and combined tachometer/hourmeters) are available. See also application guides for each instrument line.

- **O/B & 4-Stroke Gas Engine** models are for four-stroke gas engines and 4, 6, 8, 10 or 12-pole alternator-equipped outboards. These use a signal taken from the minus (-) side of the ignition coil; or outboard alternators providing a signal of 2, 3, 4, 5, or 6 pulses per revolution from the alternator. No other sender is required. May be used with OEM Electronic Ignition, *except MerCruiser Thunderbolt I (1960's era, but will work on later models), and Indmar LT-1 electronic ignition. Will not work on Force 20-pole alternators — see next paragraph and "Tachometer Guide – Outboards" in the Tech Reference section.*

NOTE: *Teleflex tachometers are not tested for use on non-original-equipment (aftermarket ignition systems). Outboard and Outboard/4-stroke gas engine tachometers are not for use with diesels.*

- **O/B Alternator (Force 20-pole)** model is available for some older Chrysler and Force outboards with 20-pole alternators (signal of 10 pulses per revolution). No other sender is required. See “Tachometer Guide – Outboards” in Tech Reference section. *Available in Red International only.*
- **Diesel Signaflex** models are also known as “Pulse Generator” type. These are for diesel engines that have provision for a mechanical tachometer takeoff. Requires Signaflex generator and appropriate Drive Tang (refer to Sender Code A in this catalog). Calibration for 1:2, 1:1, and 2:1 drive ratios is provided. *Available in Heavy Duty line only.*
- **Diesel Magnetic Pickup** models are for diesel engines with provision for mounting the required Magnetic Proximity Sender (refer to Sender Code B in this catalog) in the flywheel housing. Can be field calibrated for flywheels from 90-180 teeth. *Available in Premier White, Lido and Heavy Duty lines only.*
- **Diesel Alternator** models are for diesel engines where alternator must be used as the signal source. Field adjustable for pulley ratios from .75:1 to 4.5:1. No sender is required. To calibrate, refer to Sender Code T in this catalog or instructions with Tach. *Available in Premier White, Lido and Heavy Duty lines only.*
- **Programmable** models are for diesel applications. Accommodates Signaflex senders and most diesel alternator applications. Offered in low frequency range to accept signals from 133 to 1248 Hertz. See “Tachometer Guide – Diesels” in the Technical Reference section. *Available in Heavy Duty line only.*



Temperature Gauges

Temperature gauges are available for water or oil, in various ranges.

- **Electrical units** require a matching sender. Sender variations include resistance, temperature range, thread size, and single or dual station versions. Refer to Sender Code shown for specific gauge.
- **Mechanical units** are available for most water temperature applications. Complete with capillary tube with 1/2" NPT male thread. Tube can be coiled to shorten, but cannot be disconnected or lengthened. *Available in Heavy Duty only.*
- **Outboard Temperature kits** include electric temperature gauge (2"), sender, and sender mounting. Replacement sender kits are listed as Sender Code J in this catalog.

Trim Indicator Gauges:

Trim Indicator Gauges show relative trim/tilt position of outboard engine or stern drive lower unit. Select engine-specific gauge from Application Guides. Requires Engine Maker's trim sender.

Voltmeters:

A voltmeter indicates the electrical system/ battery voltage. No sender is required.

Senders:

Teleflex Marine offers a wide range of senders for most common instruments. The types of senders offered are letter-coded by application. Available instruments and related sender codes are listed in the *Selection Guides* for each gauge family in this section. For detailed information and drawings, see the *Senders* section, later in this book.

For applications in which a sender is not offered by Teleflex Marine (such as trim indicator gauges), we recommend use of one from the engine manufacturer.

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