



The Faria® Marine dual engine synchronizer is designed to indicate engine synchronization extremely accurately when the speeds of the two engines are compared to each other. Engine synchronization may be difficult at idle speeds. For proper operation, both engines must be of the same type, have the same number of cylinders, and have similar ignitions. Malfunctioning ignition systems or high speed "point bounce" will result in inability to sync properly.

NOTE: Inboard and I/O gas engines, outboards and diesels with tachometer signals other than magnetic pick-up will all function on one type of synchronizer. Diesels with magnetic pick-up's require a magnetic pick-up synchronizer which functions only for this application. Be sure you have the right synchronizer for your engine application.

Caution: Disconnect the battery during installation. Tighten nuts on the backclamp only slightly more than you can tighten with your fingers. **Six inch-pounds** of torque is sufficient. Overtightening may result in damage to the instrument and may void your warranty.

1. Location: The synchronizer should be located at least 18" from a magnetic compass. Some interference (erratic operation) may be noticed on the synchro during radio transmissions. This will neither damage nor degrade it's performance.
2. Be certain to use stranded, insulated wire not lighter than 18AWG that is approved for marine use. It is recommended that insulated wire terminals, preferably ring type, be used on all connections to the gauge, except the light which requires a 1/4" female blade terminals.
3. Cut a 3-3/8" dia hole in the dash and mount the gauge with backclamp supplied.
4. Using a small screwdriver, *SLIGHTLY* depress and turn the selector switch on the back of the synchro to the correct position to match the engine application. (See label on the side of the synchro.) *Depressing the switch too hard may cause damage to gauge!* Be sure the selector switch has locked into the detent at

the correct position by slightly rotating the switch back and forth with the screwdriver.

5. Connect a wire to the gauge stud marked "**GND**" (**ground**) and secure with a nut and lockwasher. Connect the opposite end to the boat's electrical ground, generally available in several locations at or near the instrument panel.
 6. Connect a wire to the gauge stud marked "**SIG PORT**" (**port signal**) and secure with a nut and lockwasher. Connect the opposite end to your boat's Port tach signal terminal.
 7. Connect a wire to the gauge stud marked "**SIG STB**" (**starboard signal**) and secure with a nut and lockwasher. Connect the opposite end to your boat's Starboard tach signal terminal.
 8. Connect a wire to the gauge stud marked "**BAT**" (**battery**) and secure with a nut and lockwasher. Connect the opposite end to a +12VDC circuit that is activated by your boat's ignition switch.
 9. Connect the blade terminal adjacent to the twist-out light assembly to the "+" side of the boat's instrument lighting circuit. No separate ground is required for lighting. Reconnect the battery.
 10. Calibration: This gauge has been calibrated at the factory, and should never need adjustment. An exception to this is a diesel engine application where the alternator is the tach signal source. Due to variations in belt tension, and/or belt dimensions, engine alternators may actually spin at different speeds with the engines running at the same RPM's.
- If you are experiencing problems with this type of application, the synchro can be adjusted to work with these differences by slightly rotating the adjustment potentiometer with a jeweler's screwdriver. This adjustment can also be used to fine tune a synchro in any application. (some models may have a 5/64th or 1.4 mm hex)
11. **NOTE:** To change the light bulb, twist black socket assembly one-eighth turncounterclockwise until it pops out. Bulb pulls straight out of socket assembly. It is a GE No.194 instrument lamp.