

PSM Systems Monitor



The PSM Systems Monitor from **philippi** provides the operator with comprehensive information of a vessel's vital systems plus remote switching and other functions. Using a CAN based digital network, communication between the various components is either by M12 or Ethernet cable, and is a simple "plug-and-play" installation. Monitoring is available for up to 16 batteries, 16 tanks, and multiple DC energy loads or sources. Remotely operated Battery Switches, with adjustable voltage cut-in and cut-out limits, can be controlled from the Display or from separate push buttons, and provision is made for multiple small-load switching, light dimming, etc. Multiple Displays can be connected to a PSM system, and the 2.8" x 2.1" high-color, touch-activated screen has attractive and easy-to-identify graphics and commands. Operation

is simple, logical, and intuitive, with all set-up procedures being performed on the screen with no computer connection necessary. A PSM system can be as basic as one Display and one Shunt, and adding components is a simple matter of connecting them in to the RJ 485/M12 daisy-chain and letting the PSM logic sort out the rest. Software upgrades are made possible via a Micro SD Card reader in the PSM Display.

Sample Pages



Battery

Displays volts, charge/discharge amps, capacity remaining in both percentage and amp/hrs, time remaining to alarm level at present current draw, alarm level, and temperature (with optional sensor). Each fully monitored battery has user-adjustable alarm thresholds for low capacity and requires a 300 or 600 amp continuous rated Shunt. Voltage of a second battery can also be displayed, with alarm capability.



Tank

Displays liquid levels in four tanks in percentage and liters. Blue = water, yellow = fuel, gray = gray water, green = waste. User-adjustable alarm thresholds for either an emptying or filling tank, plus manual reset for a tank with Flow Meter. Requires one CMT for up to four tanks, and a tank sensor or flow meter for each tank. Use Ultra Sonic Tank Sensors UTV or Flow Meter DFS. Other types of sensors are supported.



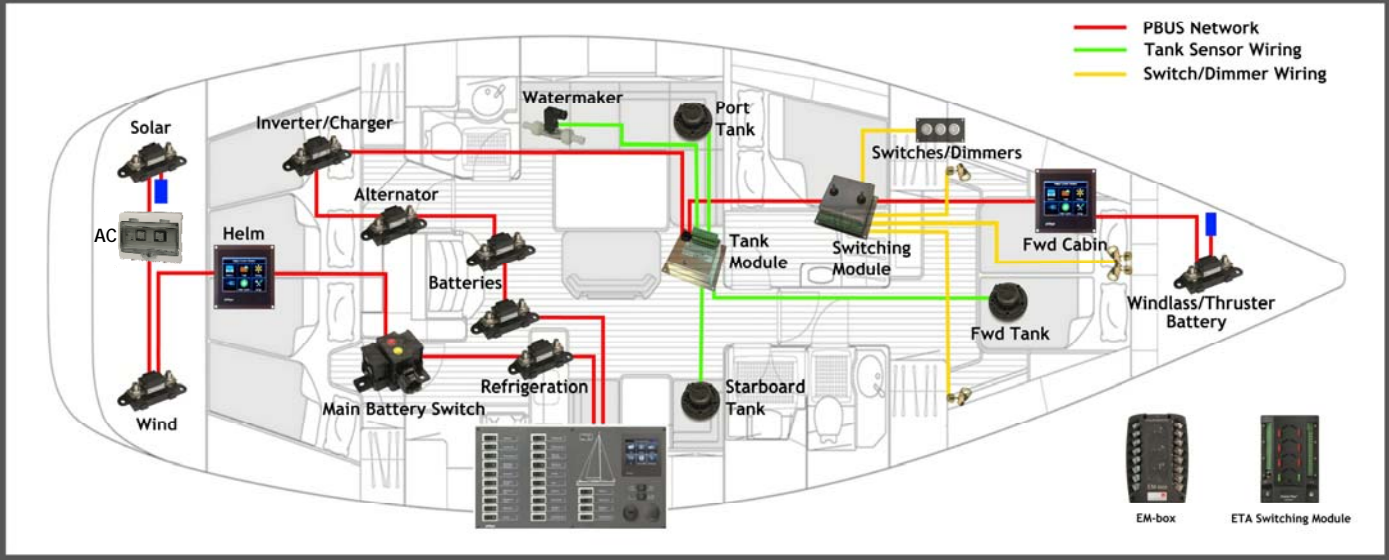
Energy

Displays charge and discharge currents for individual loads and charge devices, plus individual accumulative amp/hrs charged or consumed. Charge devices shown on top row (i.e. charger, solar, wind generator, etc), and consumers on bottom row (i.e. windlass, inverter, battery, etc.). Each device monitored requires a 300 or 600 amp continuous rated Shunt.



Battery Switch

Remote Battery Switches are displayed and colored according to their status: green = operated, red = disconnected. Switches can be activated either from the Display, from a separate push-button or key switch, or in an emergency, on the switch itself. Low and high voltage disconnect thresholds are set on the PSM Display, together with password protection if desired. Requires FBC 260 Remote Battery Switch.



Installation

All components of the network are connected with RJ 485 or M12 cables and connectors in a “daisy-chain” fashion, with items on each end of the chain having a Bus Terminator installed.



Battery Shunts - Each battery being fully monitored requires an SHC Shunt installed in the negative cable, either of 300 amp or 600 amp continuous duty rating. Each Shunt also has provision for one additional battery to be connected for voltage monitoring, plus an optional Temperature Sensor. High accuracy is obtained by the use of a 16 bit processor on the Shunt.



Load or Charge Device Shunts - Loads and charging devices require a SHL Shunt installed in the negative line, either of 300 amp or 600 amp continuous duty rating, and require a DC positive power supply. A 16 bit processor on the Shunt ensures highest accuracy.



Tank Sensors and Flow Meters - Each tank monitored requires either a Tank Sensor installed in the tank, or a Flow Meter in the fill line (for water maker), or supply line from the tank. Philippi offers a complete range of UTV ultra-sonic Tank Sensors, but other types are supported. A CMT Tank Module is required for up to four tanks, and up to four CMT Tank Modules may be connected to the network.



Remote Battery Switches – A number of Remote Battery Switches FBR 260, with a 260 amp continuous duty rating, can be connected, and there is provision for a push-button or key switch to be installed in order to operate the switch independently of the PSM Monitor. For emergency use, the switch can be operated manually by buttons on the switch itself.



Remote Switching and Dimming – Up to four loads can be controlled with the addition of a CMR Module. With an E-T-A Switching Module installed, up to 32 loads can be switched and dimmed from any PSM Display.



AC Supply Supervision and Switching – Simple AC monitoring, or with auto/manual switching. 230v only available.



PSM Displays - Numerous PSM Displays can be connected into the network, each requiring a DC positive and negative power feed.

Set-up

Once all the components are connected and powered, the PSM Monitor will automatically find all connected items and assign network addresses for them. More components can be added later on, and they will be installed on the network automatically. There’s no “programming” involved, and no computer connection required. All parameters, alarm settings, individual preferences, etc. are accessed and set on the screen via simple and intuitive menus, and the process is so straightforward that reference to the Manual is not normally required. The Setup menu is password protected to avoid accidental or malicious alteration of the settings.

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