

Catalina

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MAINSHEET

Catalina 470

C470 Association Technical Editor
 Jim Wohleber
 PO Box 157
 Friendship, MA 20758
 jejokey6@aol.com

Digital AC Electric Panel Meters

I have recently installed a pair of digital AC electrical multi-meters on Cygnus (C470 #54) for monitoring the status of each shore power circuit. The meters display volts, amps, watts, and frequency through a toggle switch and are ideal for making sure you do not overload your AC circuits. The meters are very easily installed by drilling a two-inch circular hole in the panel for each meter. The units then slip into place from the front side of the panel and are

secured by a large nut on the back side of the panel. Wiring is also very easy – four wires total. You wire the black and red wires directly to the positive (black) and neutral (white) connections on the existing 30 Amp shore power breakers. A twisted pair of wires is connected to an inductive pick-up coil through which the black load wire is inserted for measuring amps. Make all connections on the load side of the breaker and you can monitor both shore power and genset parameters.

The meters have an adjustable alarm setting for the functions. I have set my amps alarm at 26 amps as the continuous rating for our standard shore power outlets is 28 amps. Exceeding this continuous rating is a contributing cause to the shore power



connector fires some of us have experienced. A typical 30 amp circuit breaker will not trip until a continuous load of about 31.5 amps is drawn. Add to this condition even

slightly corroded terminals and you can easily create a high temperature connection with subsequent meltdown of the outlet internals. You would be surprised at how easy it is to overload your circuits; with an air conditioner running along with a small appliance you are OK until your water heater cycles on and add another 12 amps!

The meters are manufactured by Blue Sea Systems. The part number is 8247. They sell for \$220.00 at West Marine but can be purchased through Sailnet for \$135.00 each.

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Publisher

Editor

Jim Holder

830 Willow Lake
 Evans, GA
 (706) 651-0533
 jholder@mainsheet.net

Associate Editor

Carol VandenBerg

Technical Editor

Gerry Douglas

Designer & Engineer
 Catalina Yachts
 (818) 884-7700
 gerard@catalinayachts.com

DIRECT QUESTIONS AND COMMENTS TO YOUR CLASS TECHNICAL EDITOR.

Catalina 470
 Jim Wohleber
 jejokey@aol.com

Catalina 42
 Garry Willis
 garrywillis@comcast.com

Catalina 400
 Ron Marouse
 CaptRon@optonline.net

Catalina 380/390
 Warren Elliott
 warreneil@msn.com

Catalina 38
 Tom Troncalli
 Tdtron@earthlink.net

Catalina 36
 Bob McCullough
 Rmccullough@comcast.net

Catalina 36 MKII
 Tom Senator
 isenator@cisco.com

Catalina 350
 Bonnie Mitchell
 RMitchell@mn.rr.com

Catalina 34
 Steve Lyle
 TechEditor@c34.org

Catalina 320
 Rod Boer
 Rod.Boer@verison.net

Catalina 310
 Bill Lewis
 wol1@yahoo.com

Catalina 30
 Max Munger
 techtalk@catalina30.com

Catalina 27
 Harry M. Cowgill
 mollyc27@cox.net

Catalina 270
 Phil Agur
 pjagur@sbcglobal.net

Catalina 26
 Bob Unkel
 Unkel@one.net

Catalina 25
 Frank Hooper
 fhooper@mac.com

Catalina 250
 Arlyn Stewart
 aa5by@cox-internet.com

Catalina 18
 Ken Ong
 Kro2@columbia.edu

Capri 14.2
 Ed Jones
 ed@capri14.org

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