PRODUCT BULLETIN SB 8012B

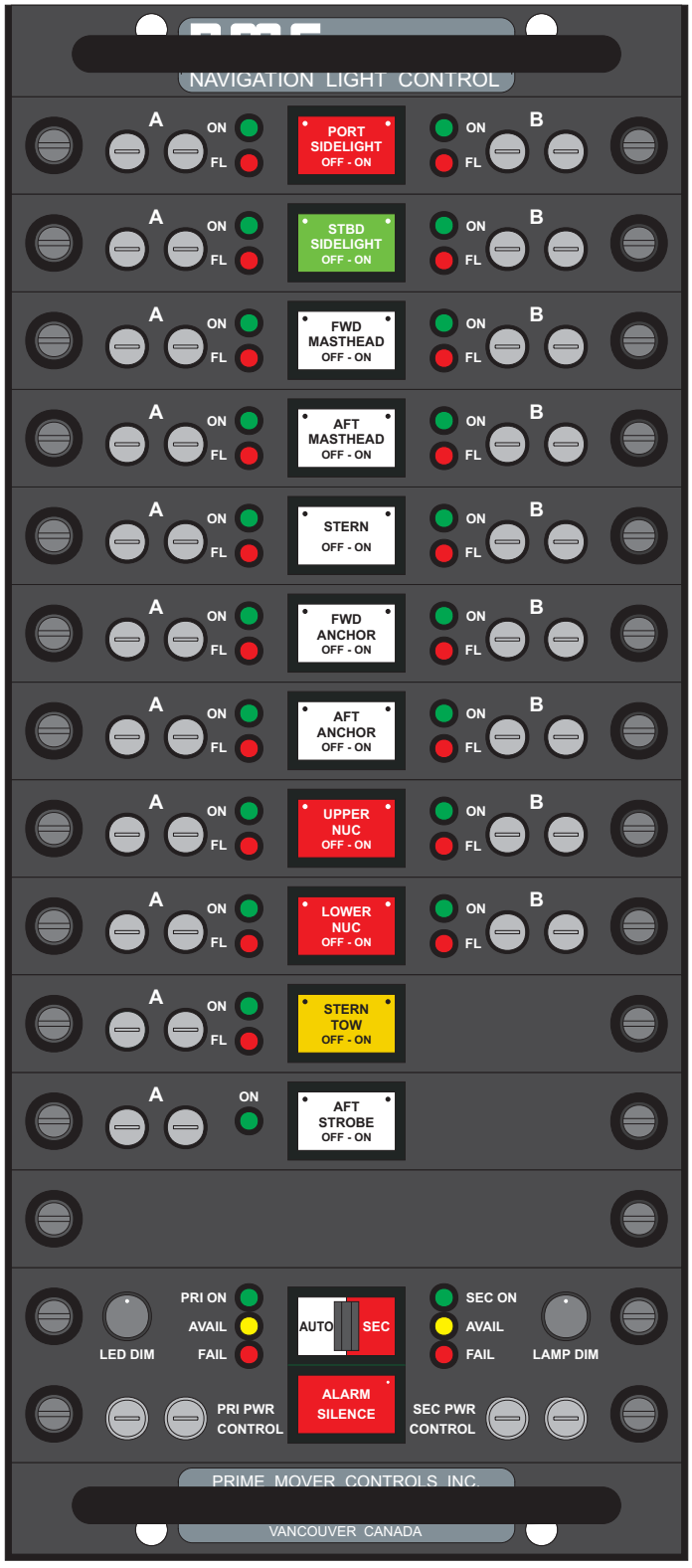
NAVIGATION LIGHT CONTROL PANEL

Type 8012

The PMC Type 8012 Navigation Light control panel is a compact, modular, solid-state control, alarm and monitoring unit. The panel has a black anodized front and is designed for flush mounting in the wheelhouse. It continuously monitors the status of all remote navigation lights, whether they are powered or turned off. When a navigation light or lamp circuit fails, visual and audible alarms are activated.

FEATURES

- Continuous supervision of remote navigation lights and wiring, when lights are on or off
- Controls heavy power loads with various AC and DC voltages
- Auto transfer to backup light when primary light fails
- Lights may be arranged in a group for a common task, so that switching one light on turns all lights in the group on
- Lights may be grouped so that failure of any primary light in the group automatically transfers all of the group members to their backup lights
- Protected from external short circuits
- Long life LED's used for display and status: lamp engraving is back lit
- Accepts a wide range of light wattage
- Includes dimmer control and internal alarm horn
- All modules are plug-in and front removable without tools
- Includes driver outputs for remote mimic display



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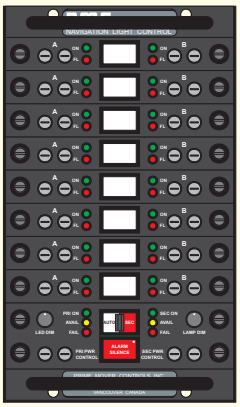
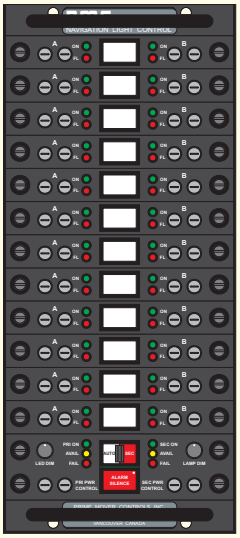
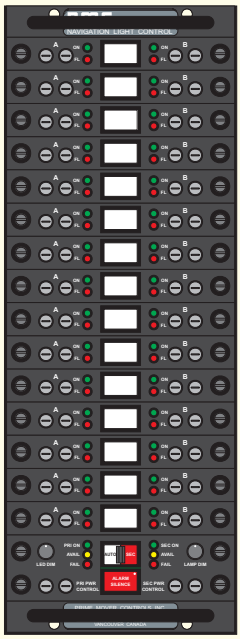
STANDARD ENCLOSURES



12" Size
8 Lamp Modules
1 Power Select Module



16" Size
12 Lamp Modules
1 Power Select Module



19" Size
15 Lamp Modules
1 Power Select Module

Type 8012 Navigation Light Control Panel

The PMC Type 8012 Navigation Light control panel continuously monitors the status of all remote navigation running lights, whether they are powered or turned off. When the lamp or circuit fails it will provide a visual and audible alarm.

The navigation lights to be monitored may typically include:

- Port - dual lamp
- Stbd - dual lamp
- Foremast - dual lamp
- Mainmast - dual lamp
- Stern - dual lamp
- Stern Tow - dual lamp
- Tow 1 - dual lamp
- Tow 2 - dual lamp
- Anchor 1 - single lamp
- Anchor 2 - single lamp
- N.U.C. 1 - dual lamp
- N.U.C. 2 - dual lamp

The panel includes front replaceable plug-in modules with front accessible, easily replaced standard fuses. Modules are capable of monitoring a wide range of lamp wattage without circuit modification. Each module includes power on and power failure lights for each circuit, as well as an off-on power select switch. Modules which control dual running lights provide automatic transfer from primary to backup, on failure of the primary light.

Failure of any lamp or circuit causes a red failure light to turn on, as well as an internal horn. The horn may be silenced by an included pushbutton but the red failure light remains on until the fault is corrected. If the circuit was turned on when the failure occurred, then the green light turns off and will only turn on again when the circuit is again operable. If the back-up lamp is selected and a failure exists, then the status failure display will continue until the fault is corrected. External short circuits will only cause failure and will not damage internal circuits.

It is possible to functionally group modules together so that only module in the group, or an external switch, can select a function or task and simultaneously turn on or off all of the lights in the group. Also it is possible to group modules together so that failure of one primary light in a group will automatically transfer every light in the group to its back-up light.

The panel operates from two AC and/or DC power sources (primary and secondary), which may be selected by a front mounted switch; failure of either power source is visually and audibly alarmed. Automatic transfer from the primary power source to the secondary power source occurs when primary power is not available. All identifying nameplates are rear illuminated using long-life LED displays. A

NAVIGATION LIGHT CONTROL PANEL

DUAL LAMP CONTROL MODULE

For controlling and monitoring dual navigation

LAMP SWITCH CONTROL MODULE

For controlling external loads (up to 4 amps).

TWIN SINGLE LAMP CONTROL MODULE

For controlling and monitoring two single independent navigation lights simultaneously.

LAMP GROUP SWITCH MODULE

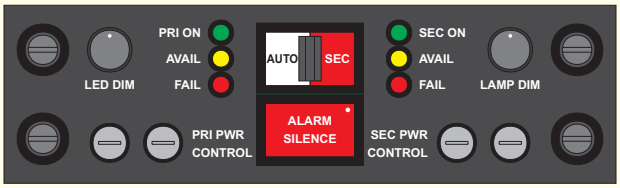
For controlling groups of navigation lights.

SINGLE LAMP CONTROL MODULE

For controlling and monitoring one single

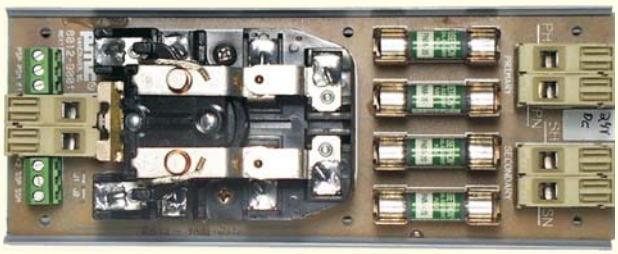
BLANK FRONT COVER PLATE

POWER SELECT MODULE



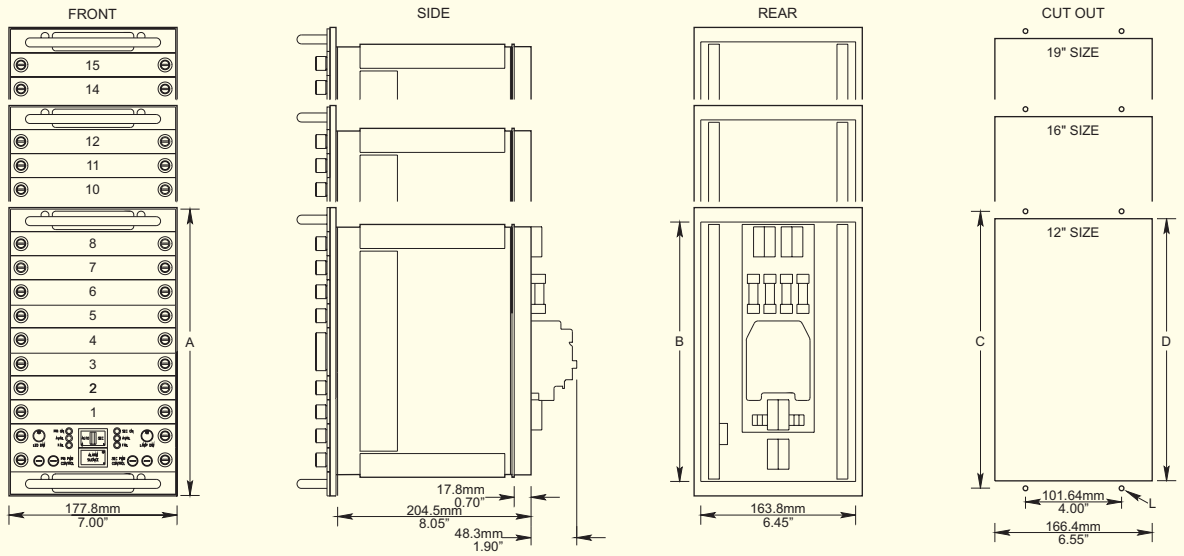
For controlling and monitoring of two AC and/or DC power sources for all lamp control loads. (Primary and secondary power sources must have the same nominal voltage) Failure of one supply is visually and audibly alarmed; transfer to alternate supply is automatic (optional manual transfer is available). Module includes horn,

AUTOMATIC POWER TRANSFER UNIT



Automatically transfers from the primary power source to the secondary power source when primary power is not available. Can be mounted on rear motherboard or located separately for track mounting. For additional details see PMC

DIMENSIONS FOR TYPE 8012 NAVIGATION LIGHT CONTROL PANEL



ENCLOSURE DIMENSIONS (INCHES)			
A	12	16	19
B	10.60	14.60	17.60
C	11.37	15.37	18.37
D	10.75	14.75	17.75
E	4 HOLES DRILL 0.220 OR TAP 10-24 UNC		
F	MOUNTING HARDWARE KIT P/N 8800-9045		

Mounting hardware kit "F", included with each panel, consists of 4 socket cap machine screws, nuts and washers

ENCLOSURE DIMENSIONS (mm)			
A	304.8	406.4	482.6
B	269.2	370.8	447.0
C	288.8	390.4	466.6
D	273.1	374.7	450.9
E	4 HOLES DRILL 5.50 OR TAP M5 X 0.8		
F	MOUNTING HARDWARE KIT P/N 8800-9046		

SCALE 1 : 8

SPECIFICATIONS:

Electrical:

- Supply Voltage: 12, 24, 32, 120 or 240 V_{AC}/V_{DC} (Primary and secondary power source must have same nominal voltage)
- Navigation lamp wattage: From 50 Watts @ 12 V to 150 Watts @ 240 V
- Enclosure rating: Total current of all navigation lights powered continuously should not exceed 25 A per enclosure
- Wire size: 8 AWG power wiring, 12 AWG navigation light wiring, 16 AWG control wiring (up to two wires per terminal)

Environmental:

- Operating temperature -20 to +70°C
- Storage temperature -40 to +85°C
- Vibration: Frequency range 2 to100 Hz Peak to peak amplitude 2 mm below 13.2 Hz Acceleration amplitude 0.7 g above 13.2 Hz

Physical:

- Dimensions: 304.8 mm, 406.4 mm or 482.6 mm H × 177.8mm W × 204.5mm D (12", 16" or 19" H × 7" W × 8.05" D)
- Automatic Power Transfer Unit adds 1.9" (48.3 mm) to depth and 0.47 kg (1.04 lbs)
- Weight: 9.77 kg (21.6 lbs) 19" Enclosure
- 8.31 kg (18.37 lbs) 16" Enclosure
- 6.28 kg (13.89 lbs) 12" Enclosure

ORDERING DATA:

1. Select number of modules of each type:
   Type DS _____
   Type TS _____
   Type SS _____
   Type LS _____
   Type GS _____
2. Select enclosure size:
   - ❑ 12" size - 8 lamp modules
   - ❑ 16" size - 12 lamp modules
   - ❑ 19" size - 15 lamp modules

   Each enclosure includes:
   - 1 power select module - type PSM
   - Blank spacers as required
3. Specify:
   - Primary power _____ volts ___ AC or DC
   - Secondary power _____ volts ___ AC or DC
   - List of navigation lights
   - Enclosure position for each navigation light
   - Bulb wattage for each navigation light
   - Location of auto power transfer unit APTU
     - ❑ Stand-off mounted on rear motherboard
     - ❑ Located separately on track mount
   - List of navigation lights in common task group (optional)
   - List of navigation lights in autotransfer on fault group (optional)
   - Mimic output drive capability provided (optional)

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