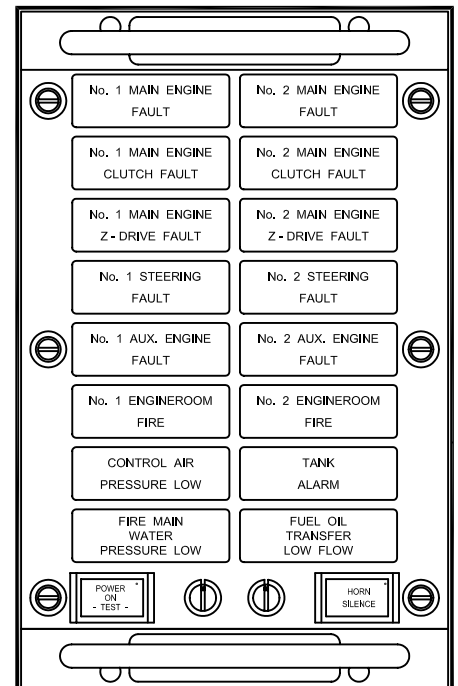
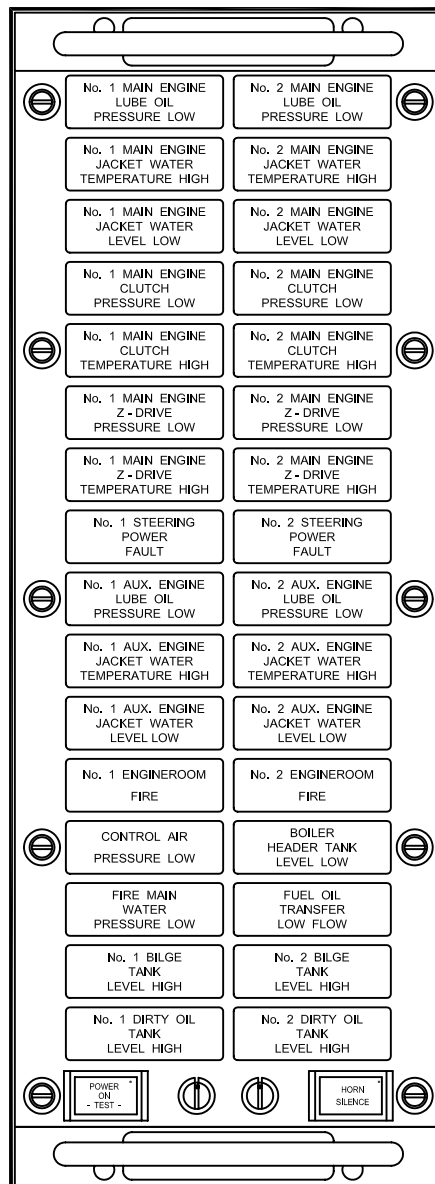




Features

- repeats alarms from other PMC products - Type 8001 alarm annunciators and Type 8110 tank level monitors
- flush mount enclosure is available in two sizes - 16 or 32 repeater points
- 12, 24, or 32 VDC operation from ship's batteries
- displays are backlit with long life red LEDs and engraved to suit
- dimmer controls built in
- microcontroller-based system
- displays are RED when a fault is repeated and white when inactive
- external connection wires are minimized using RS-485 two wire multidrop
- up to eight annunciators (either 8001 or 8110) and eight 8101 repeater panels can communicate over a single bus
- each repeater point can be programmed to repeat a single alarm or multiple alarms from the same panel
- relay output for external horn or beacon is provided
- audible alarms can be silenced without acknowledgment of visual alarm
- adjustable time delays on the audible warning for each repeater point are provided
- flashing silence button indicates which panel is annunciating
- conformally coated printed circuit boards
- suitable for use on UMS vessels
- marine approvals

TYPE 8101



PRIME MOVER CONTROLS INC.

VANCOUVER, BC, CANADA

DESIGN MANUFACTURE AND SERVICE OF MARINE AND
INDUSTRIAL CONTROL COMPONENTS AND SYSTEMS

Electronic - Pneumatic - Hydraulic - Mechanical

GENERAL

The Type 8101 Alarm Repeater is designed specifically for the marine industry and also for a wide range of industrial applications. It is a compact, microcontroller operated alarm repeater panel for operation with PMC's alarm and monitoring products such as the Type 8001 Alarm Annunciator and the Type 8110 Tank Level Monitor. Nominal operating voltage is 12 or 24 volts DC, direct from ship's batteries or from commercial power supplies.

The 8101 Alarm Repeater is available in two sizes, either as a 16 or a 32 repeater point unit. Each repeater point has a large, easy to read translucent backlit display 0.85" x 2.50" (22 x 63mm) in size. These highly visible backlit LED displays offer a large white custom engraved surface that turns a brilliant red when activated. The lenses are front removable without tools. Microcontroller operated dimming is provided on the front of the panel with fine adjustment in the low intensity region.

Up to eight Type 8101 Alarm Repeaters and eight alarm and monitoring panels are able to communicate over a simple interconnecting two wire bus. These panels may be located anywhere throughout the vessel. Alarm information may be displayed over transmission distances of 4000 feet using reliable communication standards.

Ease of installation is a major feature of the 8101 Alarm Repeater. The panel is compact and flush mountable. Two wire communication significantly decreases the number of electrical cables to be run between the engine room alarm panels and the remote alarm repeater units. The alarm repeater requires only four wires (two power and two communication) instead of the more common single wire for each repeated point, resulting in a simpler and more cost effective installation.

The 8101 Alarm Repeater is programmed using four buttons and a display located on the back of the panel. Changes to the programming after installation are easily made. Battery backup is unnecessary as all user parameters are stored in non-volatile memory.

For ease of system integration, connections are provided for external Test and Horn Silence buttons, either as individual units or in common with multiple repeater panels.

A wide variety of accessories are available from PMC to meet your alarm and monitoring system requirements.

OPERATION

The purpose of the 8101 is to repeat the alarm status from a central location such as the engine room to remote locations such as the bridge or Chief Engineer's cabin. Alarms can be repeated individually (CONTROL AIR PRESSURE LOW) or as groups (PORT MAIN ENGINE FAULT).

When the alarm and monitoring system detects an alarm condition, the 8101 Alarm Repeater functions as follows:

1. If the new alarm was selected to be repeated then the corresponding display will flash on the repeater. If the new alarm is part of a repeater group that is already activated, the repeater point re-flashes and is treated as a new alarm repeat.
2. After an adjustable time delay has expired, the internal horn will sound, the Horn Silence button will flash and the relay output (if selected) will energize. This time delay is programmable for each repeater point to minimize nuisance alarms. The horn may be silenced by an external pushbutton or the Horn Silence button provided on the front of the repeater panel.
3. After the engine room has acknowledged the fault condition at the alarm and monitoring panel, the repeater display will change from flashing to the steady on state.
4. As each alarm condition is corrected, the matching repeater display will clear. All of a group repeater's alarm conditions must be corrected before the matching repeater display will clear.

SPECIFICATIONS

Display:

- custom engraved, translucent, front replaceable lexan lens 0.85" x 2.50" (22 x 63mm) in size
- backlit by block LEDs

Power Input:

- nominal 12 or 24 volts DC
- range 9.6 to 38.4 volts DC
- input current, 3 amps nominal
- reverse and overvoltage protection to 120 VAC
- input power fuse, 5 amps, type ABC-5

Illumination:

- backlit LED display shows white when off and brilliant red when activated
- full range internal dimming for day and night operation

Environmental:

- operating temperature -25°C to +55°C
- storage temperature -40°C to +75°C

Physical (overall):

- flush panel mounting
- corrosion resistant anodized aluminum construction
- plug in terminals for 14 to 20 AWG wires

Physical (32 point):

- dimensions 19"H x 7"W x 6"D
(483 x 178 x 152mm)
- weight 8lbs (3.5kg)

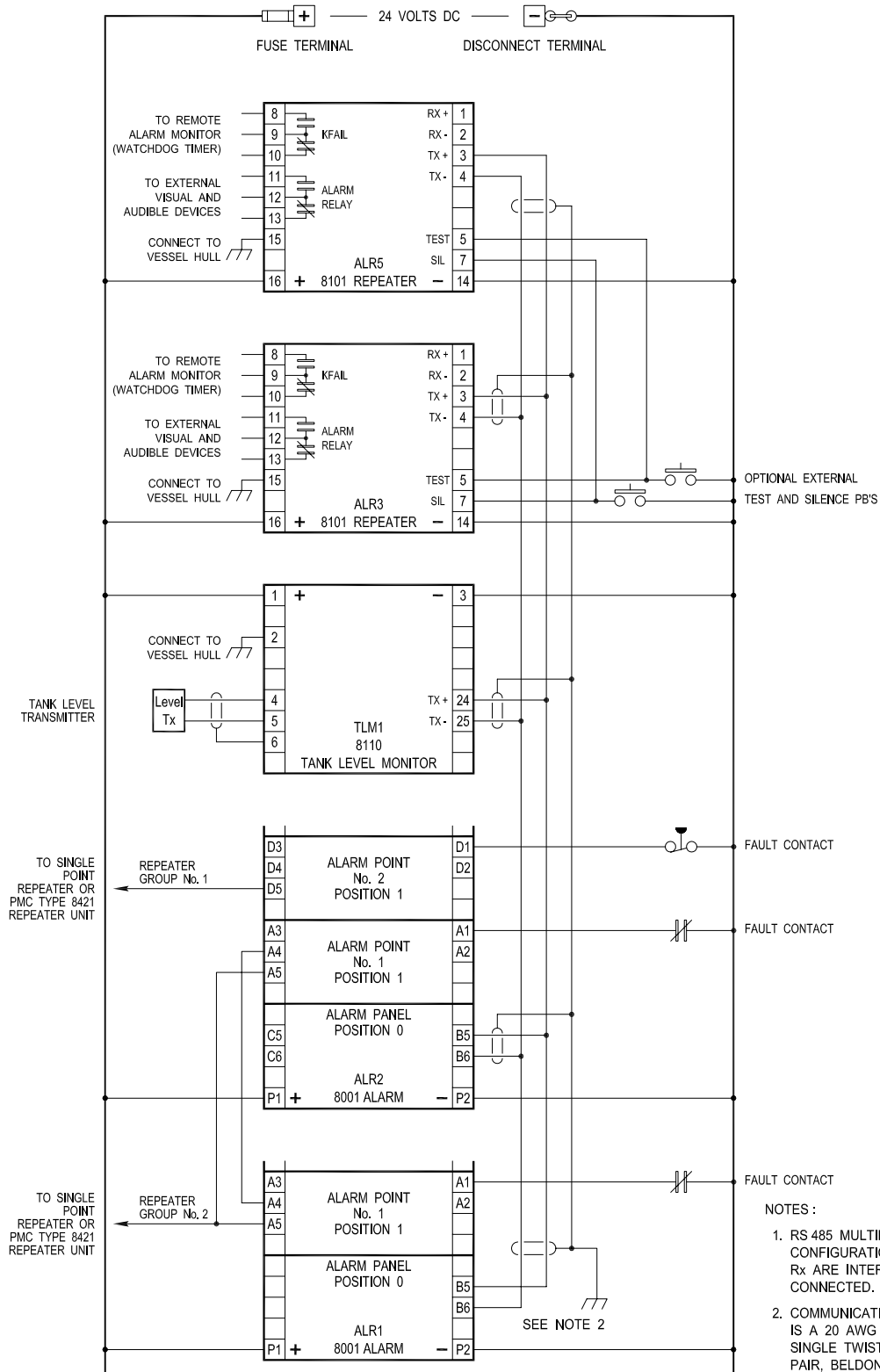
Physical (16 point):

- dimensions 11"H x 7"W x 6"D
(279 x 178 x 152mm)
- weight 5.5lbs (2.5kg)

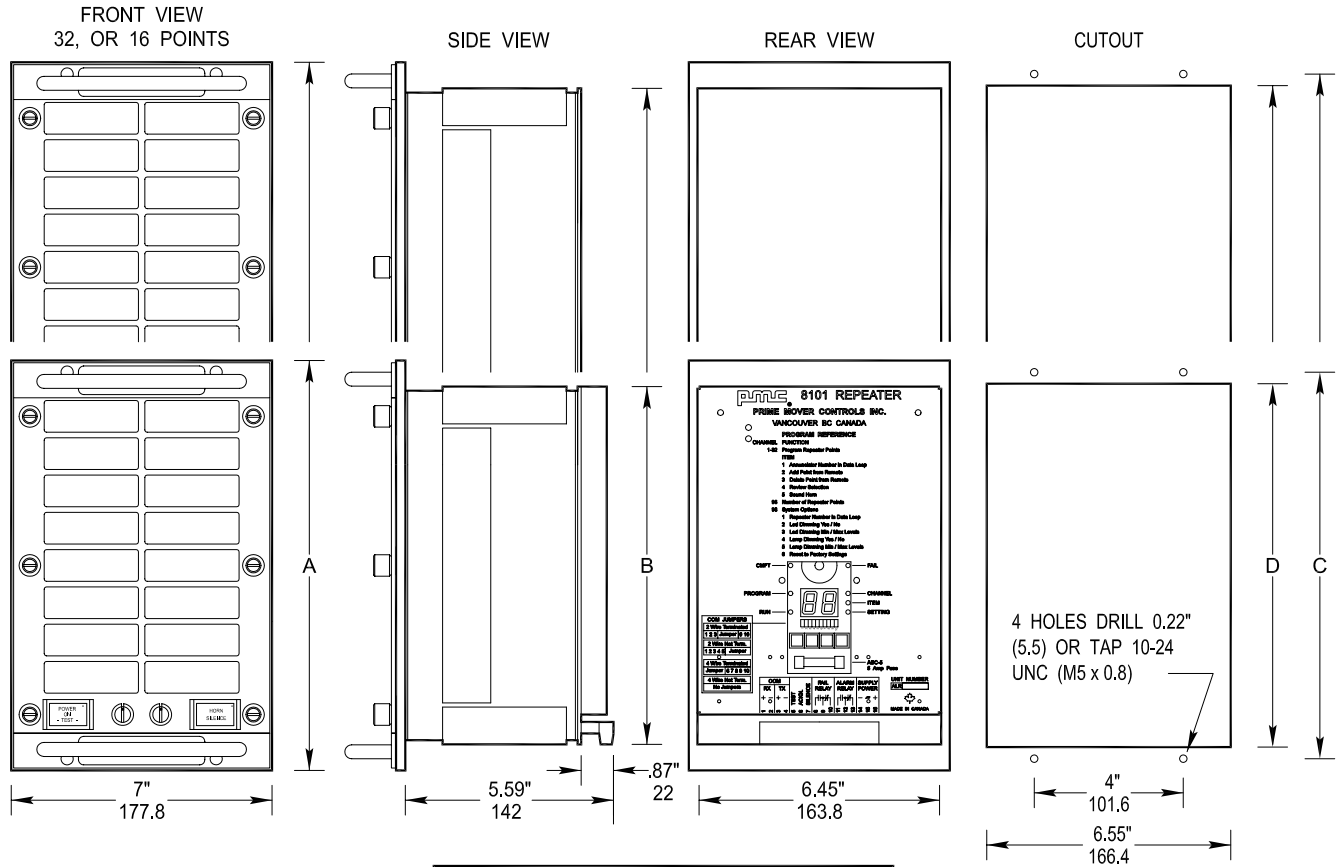
Warranty:

- 1 year

TYPICAL ELECTRICAL CONNECTIONS FOR 8101 ALARM REPEATER PANEL



ARRANGEMENTS, DIMENSIONS AND CUTOUT FOR 8101 ALARM REPEATER PANEL



ENCLOSURE DIMENSIONS				
POINTS	16		32	
	INCHES	mm	INCHES	mm
A	11	279.4	19	482.6
B	9.60	243.8	17.60	447.0
C	10.37	263.4	18.37	466.6
D	9.75	247.7	17.75	450.9

One mounting hardware kit, Part No. 8800-9045 (8800-9046 metric) is included with each panel and consists of 4 socket cap machine screws, nuts and washers

ALARM LENS - SHOWN FULL SCALE WITH TYPICAL ENGRAVING

**No.1 AUXILIARY DIESEL
JACKET WATER
TEMPERATURE HIGH**

LENS SIZE 0.85" x 2.5" (22 x 63)

- LENSES ARE FRONT REMOVABLE
- BACKGROUND COLOR IS WHITE WHEN INACTIVE
- BACKGROUND COLOR IS RED WHEN DISPLAYING FAULT
- ENGRAVING COLOR IS BLACK

8101-1-04 Rev. 0

PRIME MOVER CONTROLS INC.
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