PDA-LH Series
Light / Horn Accessory for ProVu, Helios, ConsoliDator+, and Trident X2

FEATURES

• Single Lights Available in Red, Green, Yellow, Blue, or White
• Units with One of Five User Selectable Lights Available
• Units with Three Layered Lights Available
• Light / Horn Powered Directly from Meter
• ProVu Meter Can Have up to 8 Relays to Drive Variety of Light & Horn Configurations
• ConsoliDator+ Can Have up to 10 Relays to Drive Variety of Light & Horn Configurations
• Light / Horn Programmable for Variety of Reset Functions, Including:
  • Silence Horn at Any Time
  • Light Stays on Until Alarm Clears
• Light Can Be Wired to Flash (Not Available on PDA-LH5C) or Stay Steady On
• IP 65 Rated
• 85 dB Horn
• Operates from -40 to 40°C (-40 to 104°F)
PDA-LH Series Light / Horn Accessory

OVERVIEW
Precision Digital offers three different light configurations in its line of Light / Horn devices. The first option is a factory ordered Light / Horn with a color of either red, green, yellow, blue, or white. The second option is a Light / Horn the user determines the light color (red, green, yellow, blue or white) by connecting the appropriate wire. The third option is a Light / Horn with red, yellow, and green layers the user can turn on independently. The light on the Light / Horn can be wired to flash (not available on PDA-LH5C) or stay steady on and the horn is rated at 85 dB. The light and horn can be controlled independently of each other via separate relays on the Precision Digital meter; and since the meter’s relays can be reset in a variety of ways, there are several ways the Light / Horn can operate. For instance, the horn can be programmed to silence at any time via the Reset Button or F3 front panel button (on ProVu models), and light to turn off automatically when the alarm clears.

PDA-BUTTON1R RESET BUTTON
Use the PDA-BUTTON1R reset button to silence the horn or turn off the light (9 labels provided).

DIMENSIONS
Units: Inches (mm)

Click here to watch the Light / Horn Video

www.predig.com
PDA-LH Models
Connections shown for a red light model. For other PDA-LH models, the red wire is the color of the light. Connect the red and black wires for a Steady On light and red and gray wires for Flashing light.

PDA-LH5C
Connect the LED color to the plus supply and the black wire to the minus supply to turn the LED on. Be aware of limitations for applications requiring different color lights for different alarm conditions.

PDA-LH3LC-RYG
Connect the LED color to the plus supply for a Steady On light and LED color and gray wires to the plus supply for Flashing light. The black wire should be connected to the minus supply.

CONTROL STATIONS FOR REMOTE OPERATION OF LIGHT / HORN
The PDA2360 series of plastic control stations provide a convenient way to remotely control the Light / Horn. The control stations can mimic the button on the front of MOD-LHX2 for remote control of the Light / Horn. The PDA2361-R is used to reset an alarm, the PDA2361-A is used to acknowledge an alarm, and the PDA2361-Q is used to silence an alarm.

PDA2361-R
Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDA2361-R</td>
<td>1 Black Reset Button</td>
</tr>
<tr>
<td>PDA2361-A</td>
<td>1 Black Ack Button</td>
</tr>
<tr>
<td>PDA2361-Q</td>
<td>1 Black Silence Button</td>
</tr>
</tbody>
</table>
PDA-LH Series Light / Horn Accessory

PROVU AND HELIOS APPLICATIONS

There are a wide variety of ways these Light / Horn devices can be controlled by the ProVu's or Helios's two or four relays to satisfy visual and audible alarm applications. Up to 8 relays are available on ProVu meters for even more versatility. Please feel free to contact tech support to discuss your particular application. The following examples illustrate some typical applications.

PDA-LH Models

The PDA-LH models are the simplest devices in the Series and are made up of a single-color light and horn. A typical way to use the PDA-LH is to program the ProVu so the horn can be silenced at any time via the Reset Button or F3 front panel button, and light to reset automatically when the alarm clears:

<table>
<thead>
<tr>
<th>Relay</th>
<th>Connected to</th>
<th>Default Reset Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flashing Light(1)</td>
<td>Auto reset</td>
</tr>
<tr>
<td>2</td>
<td>Horn</td>
<td>Silence with Reset Button at any time</td>
</tr>
<tr>
<td>3</td>
<td>User Device</td>
<td>As user desires</td>
</tr>
<tr>
<td>4</td>
<td>User Device</td>
<td>As user desires</td>
</tr>
</tbody>
</table>

1. Light can be wired to flash or stay steady on.

PDA-LH5C

The PDA-LH5C shows one color at a time and the light color (red, green, yellow, blue or white) is determined by which wires are connected to power through the meter's relays. A typical application for the PDA-LH5C might involve lighting up the red light to indicate high and low alarms and the green light to indicate everything is OK using the meter's four internal relays:

<table>
<thead>
<tr>
<th>Relay</th>
<th>Purpose</th>
<th>Range</th>
<th>Light/Horn</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low alarm</td>
<td>&lt; 199</td>
<td>Red light</td>
<td>Auto</td>
</tr>
<tr>
<td>3</td>
<td>Low alarm</td>
<td>&lt; 199</td>
<td>Horn</td>
<td>Latch</td>
</tr>
<tr>
<td>2</td>
<td>All OK</td>
<td>200 to 500</td>
<td>Green light</td>
<td>Auto</td>
</tr>
<tr>
<td>2</td>
<td>High alarm</td>
<td>&gt; 500</td>
<td>Red light</td>
<td>Auto</td>
</tr>
<tr>
<td>4</td>
<td>High alarm</td>
<td>&gt; 500</td>
<td>Horn</td>
<td>Latch</td>
</tr>
</tbody>
</table>

PDA-LH3LC-RYG

The PDA-LH3LC-RYG can light up red, yellow or green bands as determined by which wires are connected to power through the meter's relays. A typical application for the PDA-LH3LC-RYG (and the default factory setting) might involve lighting up the green light to indicate everything is OK, the yellow light to indicate a High warning, and the red light to indicate a High alarm. The Horn will also sound at both the Warning and High alarms and can be manually reset at any time with the front panel reset button:

<table>
<thead>
<tr>
<th>Relay</th>
<th>Purpose</th>
<th>Range</th>
<th>Light/Horn</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All OK</td>
<td>&lt; 199</td>
<td>Green light</td>
<td>Auto</td>
</tr>
<tr>
<td>2</td>
<td>Warning</td>
<td>200 to 500</td>
<td>Yellow light</td>
<td>Auto</td>
</tr>
<tr>
<td>3</td>
<td>Warning</td>
<td>200 to 500</td>
<td>Horn</td>
<td>Latch</td>
</tr>
<tr>
<td>2</td>
<td>High alarm</td>
<td>&gt; 500</td>
<td>Red light</td>
<td>Auto</td>
</tr>
<tr>
<td>4</td>
<td>High alarm</td>
<td>&gt; 500</td>
<td>Horn</td>
<td>Latch</td>
</tr>
</tbody>
</table>
WIRING CONNECTIONS FOR TRIDENT X2 METERS

PDA-LH Using Trident X2’s Internal Power Supply

- Blue, Green, Red, White, or Yellow (Light)
- Gray (Flashing Light)
- Purple (Horn)
- Black (Steady on)

Connecting the light color and gray wire makes light flash.
Connecting the light color and black wire makes light steady on.

Reset Push Button
Front Panel

PDA-LH5C Using Trident X2’s Internal Power Supply

- Blue, Green, Red, White, or Yellow (Light)
- Purple (Horn)

Connecting the light color and gray wire makes light flash.
Connecting the light color and black wire makes light steady on.

Reset Push Button
Front Panel

PDA-LH Using External Power Supply (PDA1024-01)

- Blue, Green, Red, White, or Yellow (Light)
- Gray (Flashing Light)
- Purple (Horn)
- Black (Steady on)

Connecting the light color and gray wire makes light flash.
Connecting the light color and black wire makes light steady on.

Reset Push Button
Front Panel

PDA-LH5C Using External Power Supply (PDA1024-01)

- Blue, Green, Red, White, or Yellow (Light)
- Purple (Horn)

Connecting the light color and gray wire makes light flash.
Connecting the light color and black wire makes light steady on.

Reset Push Button
Front Panel
WIRING CONNECTIONS FOR CONSOLIDATOR+

PDA-LH Using ConsoliDator+ Internal Power Supply

• Connecting the light color and gray wire makes light flash
• Connecting the light color and black wire makes light steady on

Light/Horn Wires
- Brown (Power)
- Purple (Horn)
- Gray (Flashing Light)
- Black (Steady On Light)
- Blue, Green, Red, White, or Yellow (Light)

PDA-LH5C Using ConsoliDator+ Internal Power Supply

Light/Horn Wires
- Black (Minus Supply)
- Purple (Horn)
- Green (Light)
- Yellow (Light)
- Blue (Light)
- Red (Light)

PDA-LH3LC-RYG Using ConsoliDator+ Internal Power Supply

• Connecting the light color and gray wire makes light flash

Light/Horn Wires
- Black (Minus Supply)
- Gray (Flashing Light)
- Purple (Horn)
- Green (Light)
- Yellow (Light)
- Red (Light)
AVAILABLE FOR THESE ENCLOSURES

PDA2300
Economical Plastic NEMA 4X Enclosures
The PDA-LH Series is available on all PDA2300 Series Enclosures.

PDA2500
Rugged Plastic NEMA 4X Enclosures
The PDA-LH Series is available on all PDA2500 Series Enclosures.

PDA2600
Stainless Steel NEMA 4X Enclosures
The PDA-LH Series is available on all PDA2600 Series Enclosures.

PDA2700
Steel NEMA 4 Enclosures
The PDA-LH Series is available on all PDA2700 Series Enclosures.

PDA2800 Smallest Footprint Plastic NEMA 4X Enclosures
The PDA-LH Series is available on all PDA2800 Series Enclosures except PDA2801 and PDA2812.

PDA3400 Internally Mounted Plastic NEMA 4X Enclosures
The PDA-LH Series is available on all PDA3400 Series Enclosures except the PDA3411, PDA3412, PDA3414.

Enclosures shown with a ProVu Meter and MOD-LHRB1 Red Light / Horn and Reset Button. Meter, Enclosure, and MOD-LHRB1 are Sold Separately. Assembly Required.

RESET BUTTON LABELS
The Light / Horn accessory comes with 9 pre-printed message labels the user can affix under the red button: RESET, BATCH, ACK, TARE, SILENCE, STOP, START, PAUSE, START/STOP
SPECIFICATIONS

**General**

**Light Colors:** PDA-LHR: Red, PDA-LHG: Green, PDA-LHY: Yellow, PDA-LHB: Blue, PDA-LHW: White
PDA-LH5C: User selectable: red, green, yellow, blue, white
PDA-LH3LC-RYG: 1 layer each of red, yellow, green
(consult factory for other colors available).

**Light Action:** Can be wired to flash (not available on PDA-LH5C) or stay steady on

**Horn:** 85 dB

**Rating:** IP 65

**Light / Horn Independence:** Light and horn can be controlled via separate relays.

**Power Requirement:** No additional power required when wired to a meter. When mounted remote: 24 VDC

**Transmitter Power Supply**: The ProVu's, Helios's, and Trident X2's internal transmitter power supply is capable of supplying 200 mA to power the transmitter and other devices such as the Light / Horn. The following table illustrates how much of this power is required to drive various Light / Horns. If more power is needed, then consider the PDA1024-01.

**PDA-LH and PDA-LH5C Models:**

<table>
<thead>
<tr>
<th>Color</th>
<th>Power Required</th>
<th>Color</th>
<th>Power Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>17 mA</td>
<td>Blue</td>
<td>15 mA</td>
</tr>
<tr>
<td>Green</td>
<td>15 mA</td>
<td>White</td>
<td>42 mA</td>
</tr>
<tr>
<td>Yellow</td>
<td>23 mA</td>
<td>Horn</td>
<td>20 mA</td>
</tr>
</tbody>
</table>

Example: 17 mA (Red Light) + 20 mA (Horn) = 37 mA total current needed from the 200 mA supply. Available current = 163 mA

**PDA-LH3LC-RYG:**

Power Requirement for the horn and each color that is turned on:

<table>
<thead>
<tr>
<th>Color</th>
<th>Power Required</th>
<th>Color</th>
<th>Power Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>34 mA</td>
<td>Yellow</td>
<td>33 mA</td>
</tr>
<tr>
<td>Green</td>
<td>29 mA</td>
<td>Horn</td>
<td>38 mA</td>
</tr>
</tbody>
</table>

Example: 33 mA (Yellow Light) + 38 mA (Horn) = 71 mA total current needed from the 200 mA supply. Available current = 139 mA

**Reset / Silence Button:** NEMA 4X; may be wired to F4 terminal on ProVu or Helios. F3 front panel button can also be used to reset relays on ProVu or Helios. Reset button can also be used to reset relays on Trident X2.

**Reset Button Labels:** The Light / Horn accessory comes with 9 pre-printed message labels the user can affix under the red button: RESET, BATCH, ACK, TARE, SILENCE, STOP, START, PAUSE, START/STOP

**Light / Horn Mounting Connection:** M22

**Hole Sizes:** Light / Horn: 0.875" (22 mm)

**Cable Length:** 3.28 feet (1 meter)

**Operating Temperature Range:** -40 to 40°C (-40 to 104°F)

---

**Compatibility**

**PDA-LH & PDA-LH5C Models:** ProVu, Helios, Trident X2, ConsoliDator+

**PDA-LH3LC-RYG:** ProVu, Helios, ConsoliDator+

**OPTIONAL 24 VDC POWER SUPPLY**

PDA1024-01: DIN rail mounted 24 VDC, 1.5 A power supply.

**Output Voltage:** 21.6 ~ 26.4 VDC, ±10% 1.5A rated current.

**Dimensions:** 3.07” x 3.66” x 2.20”

(78 mm x 93 mm x 56 mm) (W x H x D)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDA-LHR</td>
<td>Red Light / Horn</td>
</tr>
<tr>
<td>PDA-LHG</td>
<td>Green Light / Horn</td>
</tr>
<tr>
<td>PDA-LHY</td>
<td>Yellow Light / Horn</td>
</tr>
<tr>
<td>PDA-LHB</td>
<td>Blue Light / Horn</td>
</tr>
<tr>
<td>PDA-LHW</td>
<td>White Light / Horn</td>
</tr>
<tr>
<td>PDA-LH5C</td>
<td>Light / Horn with User Choice of Red, Green, Yellow, Blue or White Light</td>
</tr>
<tr>
<td>PDA-LH3LC-RYG</td>
<td>Light / Horn with Red, Yellow, Green Light Layers</td>
</tr>
<tr>
<td>PDA-BUTTON1R</td>
<td>Reset Button</td>
</tr>
<tr>
<td>PDA1024-01</td>
<td>24 VDC Power Supply for DIN Rail</td>
</tr>
</tbody>
</table>

---

**Your Local Distributor is:**

---

**Disclaimer**

The information contained in this document is subject to change without notice. Precision Digital Corporation makes no representations or warranties with respect to the contents hereof, and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose.

©2019 Precision Digital Corporation. All rights reserved.

---

**WARNING**

Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)