

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

BLK-3-EWP
**Line Status Strobe
Light Kit with EWP**

November 21, 2002

Provide Strobe Light Indication of Line Status

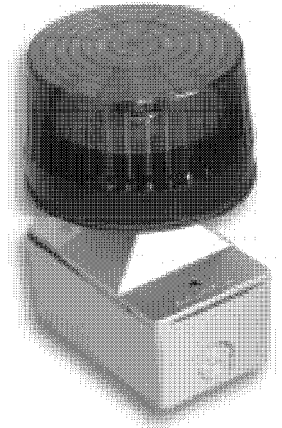
Ideal for Use with Two-Button Emergency Phones!

The **BLK-3-EWP** provides high visibility indication of analog line status through a high powered one million candle power strobe light. The **BLK-3-EWP** is the ideal solution for the hearing impaired and can be used equally well in loud warehouses or factories, where ringing phones can not be heard. Alternatively, the **BLK-3-EWP** can be used to add emergency notification to pre-existing emergency phones by turning on the strobe light when the emergency phone is in use.

The included **LDB-3** control module has a disable input which is ideal for two-button emergency phones, such as Viking's **E-1600-20A**, allowing "Info" button calls to be placed without activating the relay (turning on the emergency strobe light, camera, etc.) Three DIP switches are provided for turning ring detection on or off, off-hook/loop detection on or off and for selecting a ring cadence mode which allows the relay to follow ringing or to remain activated during the off time of standard ring cadence.

The control module can be installed on any standard telephone line or analog PABX/KSU station. The 1 million candle power strobe can be interfaced to flash on ringing, off-hook or a combination of ringing and off-hook (line in-use). The **LDB-3** ring/loop detect control module is also available separately.

The kit includes: (1) **LDB-3** control module, (1) blue strobe light, (1) 12V DC power adapter, (13) gel-filled butt connectors and (1) single gang weatherproof mounting box with gaskets and hardware.



Features

- **LDB-3** control module with Enhanced Weather Protection (EWP) included
- Durable polycarbonate lens
- Long life 1 million candle power blue strobe light
- Flush mount or surface mount with weatherproof single gang box (included)
- 3/4" knockouts for connecting conduit, etc.
- Strobe and control module may be installed separately
- Can be configured to signal: ringing, off-hook, or a combination of both ringing and off-hook (line in-use)
- One set of (NO) normally open and (NC) normally closed relay contacts provided
- Selectable ring cadence mode (strobe light will remain flashing between rings)
- Switched 12V DC output (follows relay activation for powering strobe lights, cameras, etc.)
- On/off switches for ring detection and off-hook/loop detection
- Disable input, ideal for use with two-button emergency phones (**E-1600-20A**), will not activate strobe light on "Info" calls

Applications

- Ringing Phone or TTY indication for the hearing impaired
- Ringing phone indication in loud warehouses and factories
- Emergency illumination for emergency phones in elevators, campuses, hallways, parking ramps, etc.
- Alarm indication for security systems or alarm panels with phone dialers

Specifications

Power: 120V AC to 12V DC adapter provided

Strobe Dimensions: 111mm diameter x 69mm (4.38" x 2.75")

Control Module Dimensions: 74mm x 53mm x 25mm (2.9" x 2.1" x 1.0")

Shipping Weight: 1.5 kg (3.3 lbs)

Operating Temperature: -26° to 54°C (-15° to 130° F)

Relay Contact Rating: .5A @ 125V AC/1A @ 30V DC

Minimum Loop Current: 15 mA

Minimum Ring Voltage: 25V RMS

Strobe Output: 1 million candle power @ 1 second flash rate

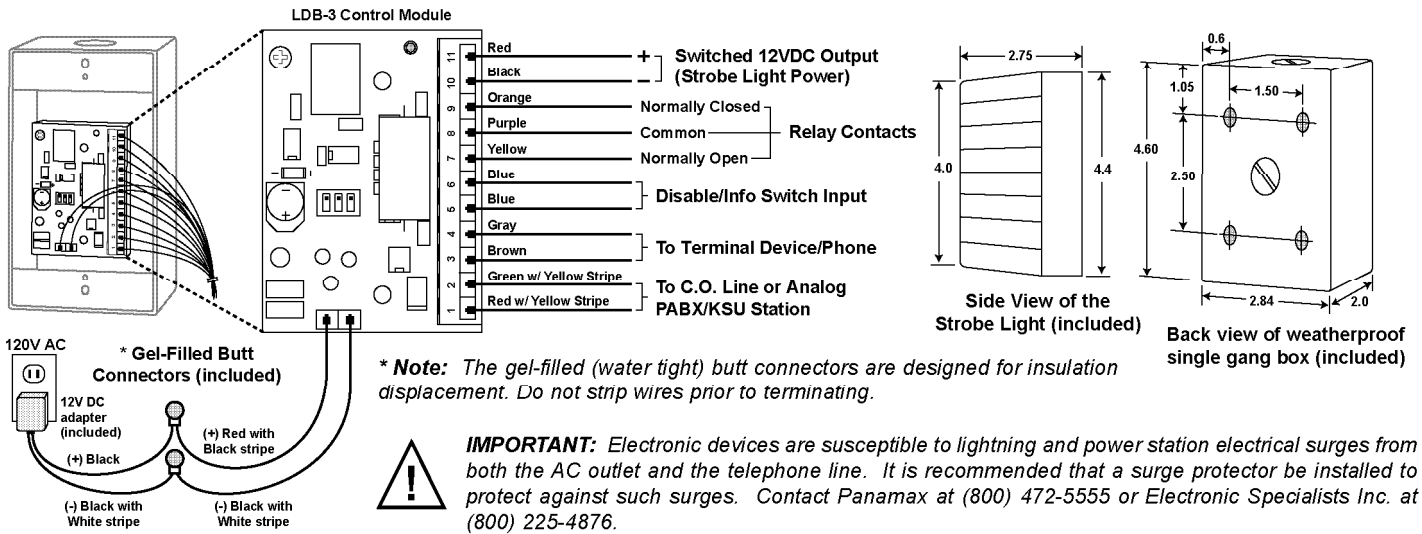
Ringer Equivalence: 0.5 A REN

Disable/Info Switch Input: 50mA/80mW maximum

Mounting: Fasten to wall, post, etc. with complete surface mounting hardware included

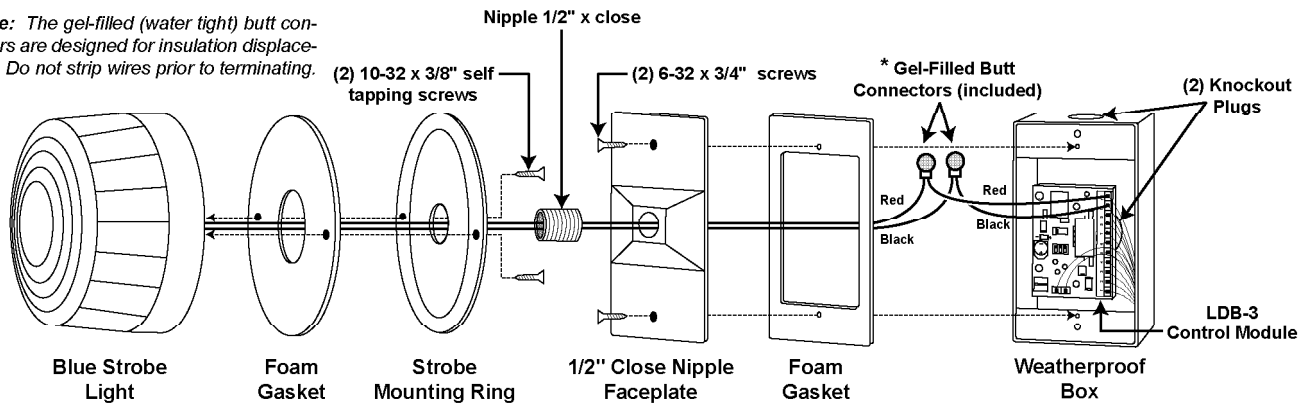
Connections: Color coded wires with gel-filled butt connectors

Installation



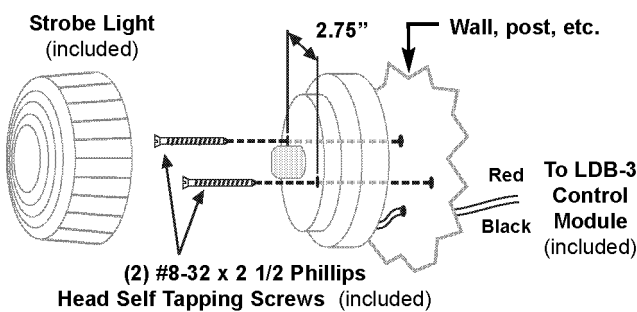
A. Installing the Strobe Light Using the Included Weatherproof Box

* Note: The gel-filled (water tight) butt connectors are designed for insulation displacement. Do not strip wires prior to terminating.



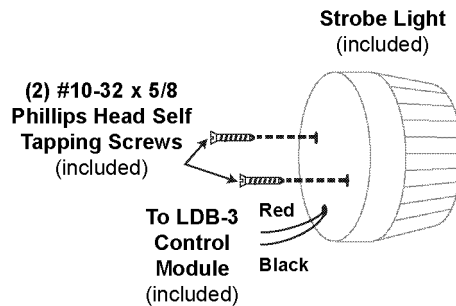
B. Front Mounting Without Weatherproof Box

The BLK-3-EWP Strobe Light Kit may be mounted without using the included weatherproof box. To mount the strobe light from the front, use the diagram below.



C. Rear Mounting Without Weatherproof Box

To mount the strobe light from the rear, use the diagram below.

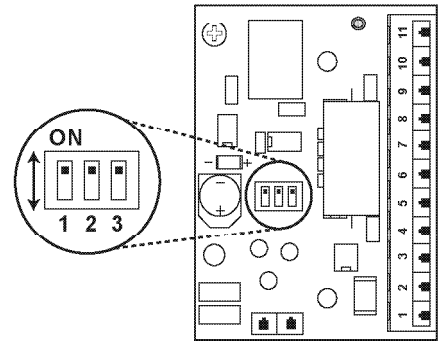


Programming

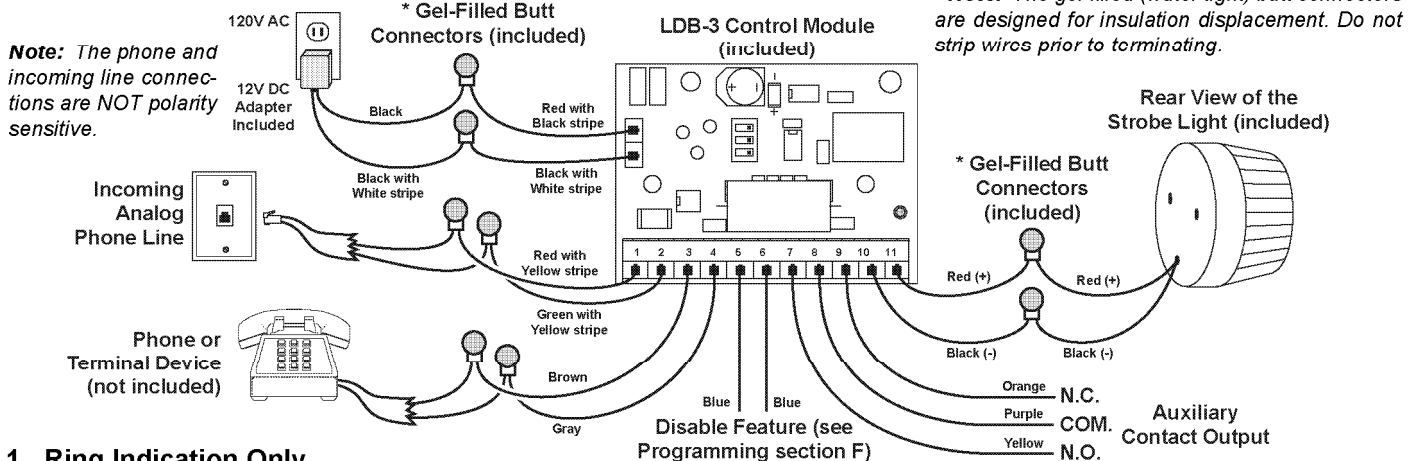
A. DIP Switches

Sw 1	Sw 3	Description
ON	OFF	Ring Detection Only (see section B).
OFF	ON	Off-Hook/Loop Current Detection Only (see section B).
ON	ON	Ring and Off-Hook/Loop Current Detection (see section B).

Sw 2	Ring Cadence Mode (see section C)
ON	Ring Cadence Mode ON - relay remains activated in between rings.
OFF	Ring Cadence Mode OFF - relay is activated only during ringing.



B. Configuring for Ring and/or Loop/Off-Hook Indication



1. Ring Indication Only

Connect the incoming line to the red and green wires with the yellow stripe as shown in the diagram. No phone/terminal device is required. The LDB-3 control module can monitor for ringing any place along the ringing line.

2. Loop/Off-hook Indication Only

The LDB-3 control module must be placed between the phone line and the phone/terminal device to be monitored. Connect the incoming line to the red and green wires with the yellow stripe and connect the phone/terminal device to the brown and gray wires as shown.

3. Both Ring and Loop/Off-hook Indication

If the application requires ring and loop/off-hook indication, the LDB-3 control module must be placed between the phone line and the phone/terminal device to be monitored. Connect the incoming line to the red and green wires with the yellow stripe, connect the phone/terminal device to the brown and gray wires.

C. Ring Cadence Mode

DIP switch 2 is used for switching between different ring detection modes. In the **OFF** position, the relay and switched 12VDC output will activate only while ring voltage is present and will turn off between rings. In the **ON** position, the relay and switched 12VDC output will remain on for up to 5.75 seconds after the ringing has stopped. This allows the relay and 12VDC (flashing strobe light) to remain on for up to 5.75 seconds between rings of a standard ring cadence. **Note:** To use the Ring Cadence Mode, ring detection **MUST** be enabled (DIP switch 1 - **ON**).

D. Relay Contacts

Normally open and normally closed relay contacts are available on the orange, purple and yellow wires. The contacts are rated at .5A @ 125VAC/1A @ 30VDC. If contacts are driving an inductive load, place a suppression device at the load to snub high voltage spikes.

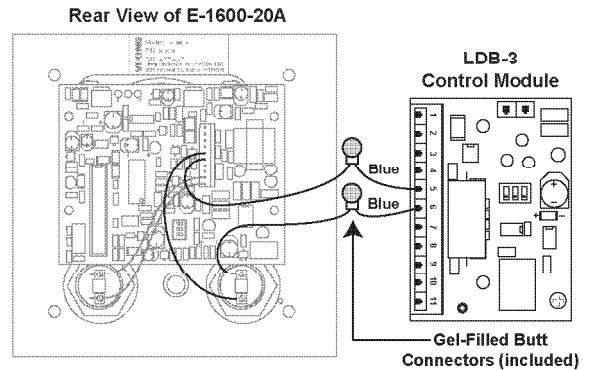
E. Switched 12V DC Output

The switched 12V DC output is a low current, 12-15VDC output that is turned on only while the ring/loop detect relay is activated. This switched power output is ideal for lighting the included strobe light or providing 12-15V DC power to any device that draws less than 350mAmps. The positive side is available on the red wire, and the negative side is on the black wire. Once all the line and load connections have been made, plug in the 115 V AC wall adapter, and replace the cover.

F. Disable Feature

By connecting the Disable/Info Switch input of the **LDB-3** control module to the “Info” switch of Viking’s **E-1600-20A**, **E-1600-20A-EWP**, **E-1600-52A** or **E-1600-52A-EWP** Emergency Phone, any outbound call initiated from the “Info” button will not activate the strobe light. This way, only the “Help/Emergency” outbound calls will activate the relay. Cut one of the “Info” switch wires in half and connect each end to the blue wires on the **LDB-3** control module as shown in the diagram at the right. **Note:** *This Disable input is **NOT** polarity sensitive.*

The “Disable” input can be connected to a switch for remotely disabling/turning off the device (strobe light, camera, etc.) controlled by the **LDB-3**. For more information, retrieve **Fax Back Document 866**.



Operation

A. Ring Indication (DIP Switch 1 ON)

When the **LDB-3** control module detects an incoming ring signal, it activates a set of normally open or normally closed contacts and turns on the 12VDC output for activating the provided strobe light. With the Ring Cadence mode off (DIP switch 2 OFF), the relay will activate and the strobe light will flash only during ringing. With the Ring Cadence mode ON (DIP switch 2 ON), the relay will remain activated and the strobe light will remain flashing between rings.

B. Off-Hook Indication (DIP Switch 3 ON)

When the **LDB-3** control module detects an off-hook condition (loop current) on the brown and gray wires, it activates a set of normally open or normally closed contacts and turns on the 12VDC output for activating the provided strobe light. The relay contacts will remain activated and the blue strobe light will flash during the off-hook condition and will stop flashing approximately 3 seconds after the phone/terminal device on the brown and gray wires is back on-hook.