



# ZONE SENSING



## STANPRO LIGHTING SYSTEMS

*At Stanpro, we put safety along with maximized return on investment for our customers and end users at the forefront of our emergency lighting product development strategy. Our 437 years of combined experience in emergency lighting continuously allow us to offer products that meet or exceed both the requirements and expectations of our customers, while maintaining an unparalleled qualitative and quantitative added-value. In this respect, one of our fundamental imperatives is a best in class customer support which is inherent to our products and makes us the number one manufacturer who changes your emergency lighting purchases from a simple transaction to not only a trusted, pleasant and worry-free experience, but a true long-lasting partnership.*





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## WHY WE NEED ZONE SENSING

When a monitored lighting circuit loses AC power, a closed relay opens, which triggers emergency lighting in the affected lighting circuit area to be activated while the other emergency lighting in the same building that has no loss of power to the monitored lighting circuits, remains off.

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## ADVANTAGES OF ZONE SENSING

- Preserves the life of the sealed lead batteries.  
( AT feature should be used in conjunction)
- Unaffected areas would have regular AC power still being delivered to those unaffected areas, while on delivering emergency lighting power to the area required (ex. 1 floor of an apartment building vs the whole building)

### REQUIRED

Initially specified for the Armed Forces, was soon adopted province wide and put into the Building Inspector's check list for all new construction to ensure the lighting circuits in paths of egress are monitored.

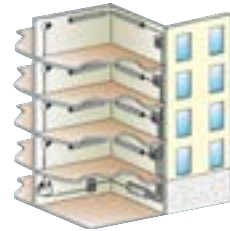
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# ZONE SENSING TYPES

## EXTERNAL ZONE SENSING

External zone sensing panel limitless amount of zones (lighting circuits), any voltages to be monitored.

Usually installed near lighting panel, where lighting circuits will flow through separate wiring and pipe to go to battery unit(s).



## INTERNAL ZONE SENSING

Battery as well as zone sensing control all in 1 cabinet.

Maximum of 6 x 120V or 3 x 347V lighting circuits



## INDIVIDUAL & PARALLEL MONITORING

When lighting circuits are individually monitored, only specific emergency lighting will come on.

When lighting circuits are parallel monitored, all the emergency will come on in the lighting circuits that are being monitored.



# SLZC



## INTEGRAL ZONE SENSING CONTROL PANEL

### INTEGRAL ZONE SENSING CONTROL PANEL

Complies to the Winnipeg by-law No. 77/2015

Complies to the Alberta Electrical Safety Bulletin 10-2017 CEC-046

#### DESCRIPTION

The SLZC series zone sensing controls is designed to be integral inside the battery unit and will automatically trigger emergency lighting operation in conjunction with local/zone normal lighting circuit failure. The zone sensing circuits are connected in parallel up to three circuits at either 120VAC, 277VAC, or 347VAC, and up to six circuits at 120VAC, should one or all of these lose power the emergency lighting will come on in the given area. The localized area where the power has failed or breaker has tripped will now be illuminated by emergency lighting. Without zone sensing this area may be exposed to potential of total darkness.

#### FEATURES

- 20 gauge steel construction
- Universal spider knockout pattern and keyhole mounting slots stamped in back of cabinet
- Multiple conduit entry knockouts
- White powder coat finish
- Well labeled terminal blocks for easy wiring
- Zone sensing wiring diagram included

#### OPTIONS

- ZPL zone pilot led (non-working light circuit indicator)
- AT auto diagnostic with built in time delay programed to test battery (s) to the Fire Code of Canada requirements
- ZTS - Zone test switch
- WPC - Weather-proof cabinet (EEMAC4) available on H cabinets only

#### CIRCUITRY

- Various monitoring voltages available 120, 277 and 347VAC
- Up to 3 parallel monitored zones (lighting circuits) at 120, 277, or 347VAC
- Up to 6 parallel monitored zones (lighting circuits) at 120VAC

#### ORDERING GUIDE

Series	Voltage	Wattage	Head/Lamp	Zone monitoring voltage	Number of monitored circuits /Zones	Options
SLZC	12V - 12V	160W 200W 250W 360W	* See lamp selection on SLA, SLB, SLC and SLD series page.	120 - 120V	2Z- 2 zones 3Z- 3 zones 4Z- 4 zones 5Z- 5 zones 6Z- 6 zones	AT - Auto-test self diagnostics ZTS - Zone test switch ZPL - Zone pilot light WPC - Weather-proof cabinet (EEMAC4) available on H cabinets only
	24V - 24V	144W 200W 320W 550W 720W		277 - 277V 347 - 347V	2Z- 2 zones 3Z- 3 zones	

Note: All zone sensing application wiring diagram are provided to contractor for approval before production.

# SLZB

## EXTERNAL ZONE SENSING CONTROL PANEL

Complies to the Winnipeg by-law No. 77/2015

Complies to the Alberta Electrical Safety Bulletin 10-2017 CEC-046

#### DESCRIPTION

The SLZB series zone sensing controls is designed to be mounted externally near the lighting panel.

The battery unit (s) and will automatically trigger emergency lighting operation in conjunction with local/zone normal lighting circuit failure activated from the panel.

The zone sensing circuits are wired in either individual or parallel up to as many circuits requiring monitoring in either 120, 277 or 347VAC.

The localized area where the power has failed or circuit (s) breaker has tripped will now be illuminated by emergency lighting battery(s) units and remotes.

Without zone sensing this area may be exposed to potential of total darkness.

#### FEATURES

- Cabinet may vary in size due to the number of circuits being monitored and the number of outputs
- 20 gauge steel construction

- Universal spider knockout pattern and keyhole mounting slots stamped in back of cabinet
- Multiple conduit entry knockouts
- White powder coat finish
- Well labeled terminal blocks for easy wiring
- Zone sensing wiring diagram included

#### CIRCUITRY

- SLZB external panel may be wired to monitor individual zones (circuit) or in parallel where all zones (circuits) monitored together.
- SLZB external panel will allow more than one output (battery unit) allowing the panel to monitor many circuits while utilizing more outputs (battery units).

#### Step 1 - Fill in the questionnaire

1	How many lighting circuits require monitoring?	
2	What is the A/C voltage of the monitored lighting circuit?	
3	What is the A/C voltage of the connected batteries?	
4	How many outputs are required? <i>(Each output corresponds to a single battery unit)</i>	
5	Will the lighting circuit be monitored in parallel or individually? <i>(Parallel: If any one goes down then all emergency lighting activates)</i> <i>(Individually: Emergency lighting activates only in the area affected by the outage)</i>	
6	Are LED indicators required for each circuit? (ZPL) <i>(Let's customer know definitively which circuit is down)</i>	
7	Does each lighting circuit need a test switch to engage emergency lighting for test purposes? (ZTS)	

#### Step 2

Please contact your local Stanpro Authorized representative with the project name.

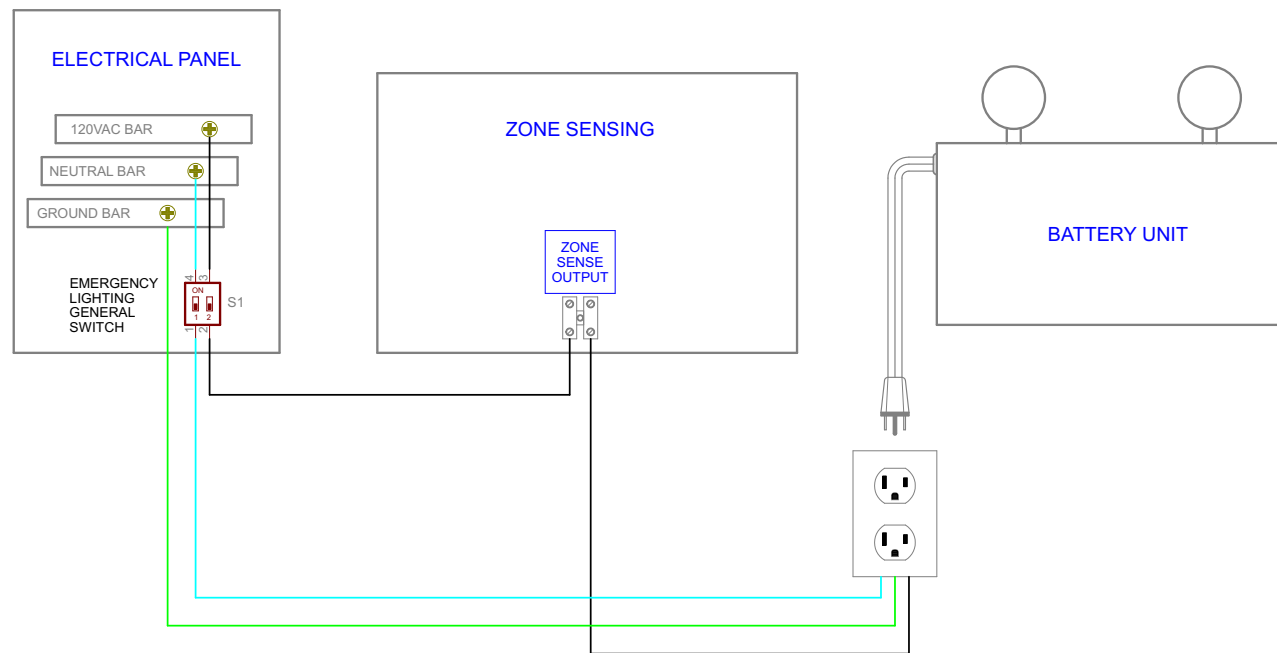
#### Step 3

Stanpro will provide wiring diagram based on Step 1 criteria.

#### Step 4

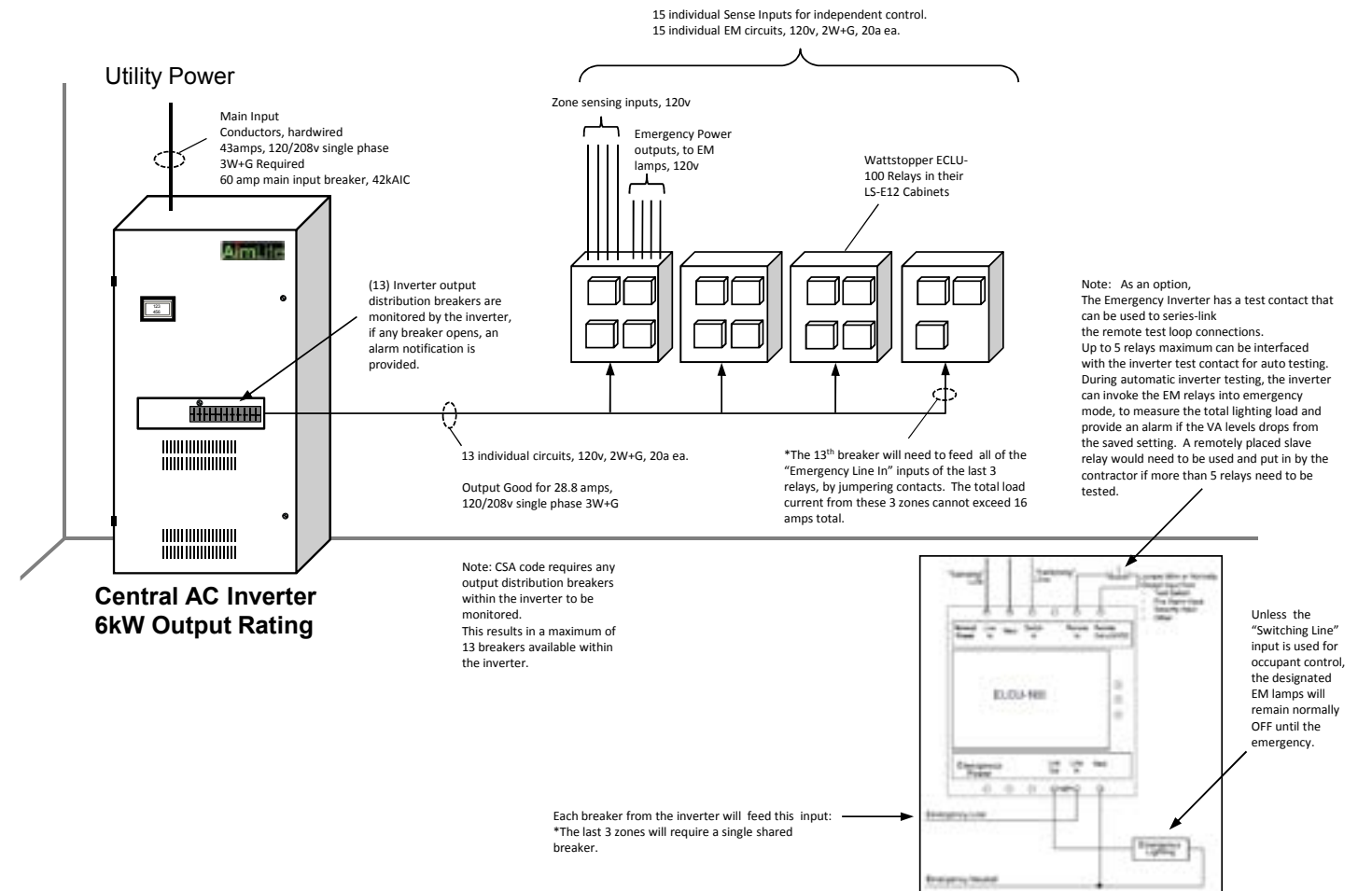
Once Stanpro has approval from consultant or engineer in charge of the project we will be able to manufacture the external zone panel.

# INTERCONNECTION BETWEEN ELECTRICAL PANEL, ZONE SENSING AND BATTERY UNIT



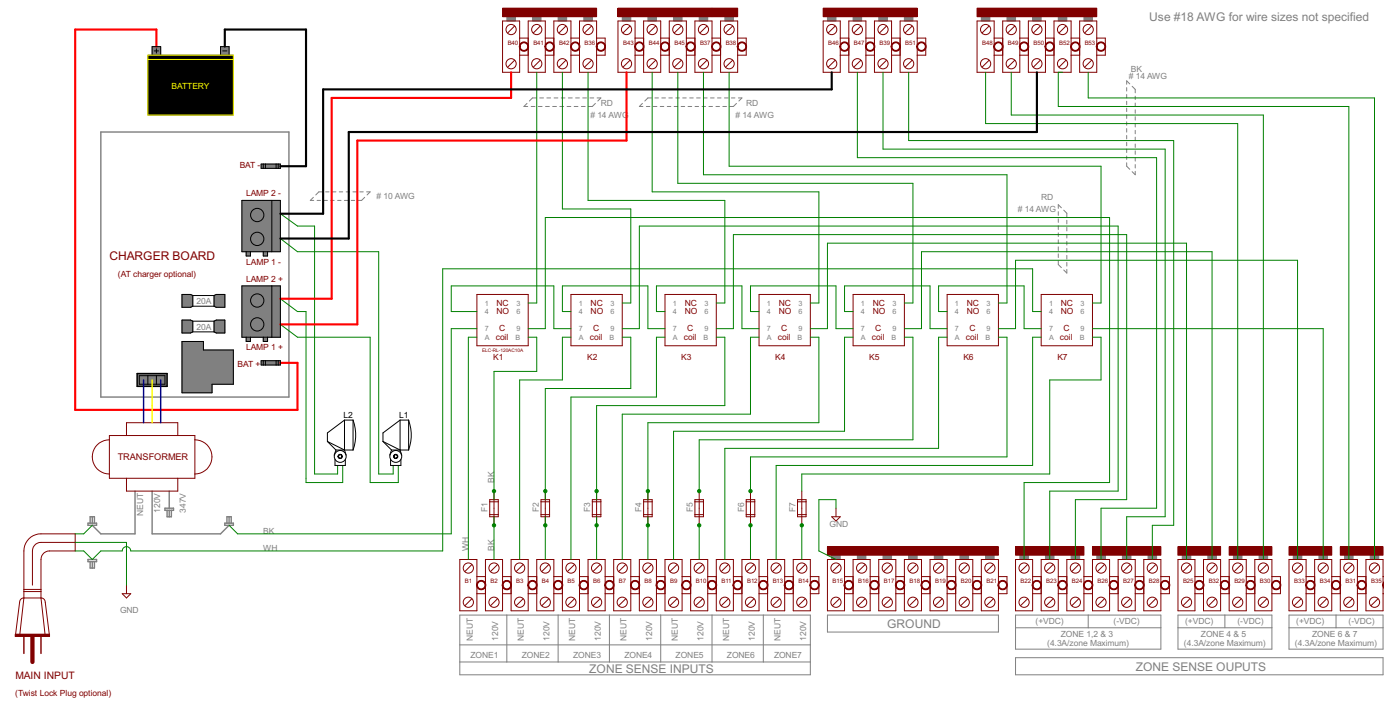
# EXAMPLES OF SPECIAL APPLICATIONS

*Emergency Egress with Zone Sensing Devices Centrally Located  
Central location assists with testing function – Zone Relays have a Integral Test Button*

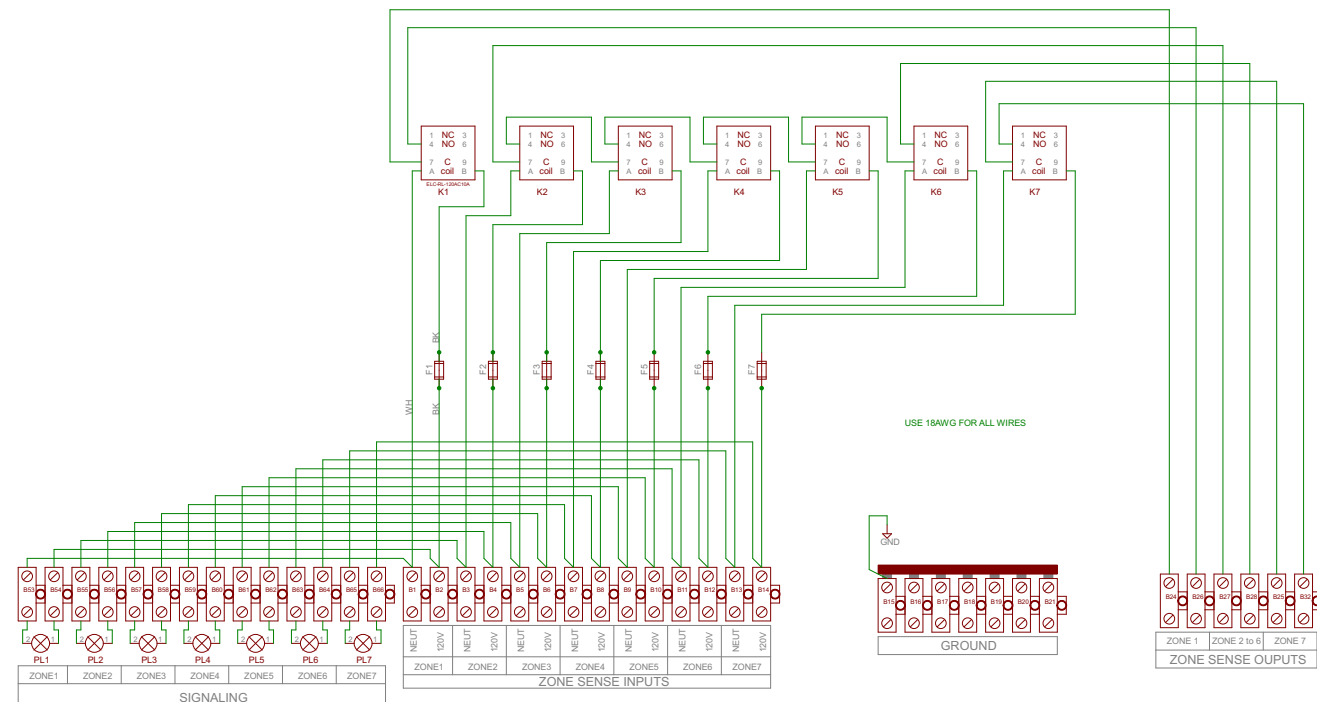


## INDIVIDUAL & PARALLEL MONITORING

Battery unit with zone sensing of 7 inputs at 120vac and 3 dc outputs.



Zone sensing of 7 inputs at 120vac and 3 outputs with pilot lamps



## GETTING STARTED WHAT'S REQUIRED

### FILL IN THE ORDERING QUESTIONNAIRE

Based on the criteria from the questionnaire a wiring diagram is generated by our engineering team which then is forwarded to the consultant and contractor of the project to be stamped and signed off.

The main reason for this is that the correct zone sensing material is what is required for the project.

### 1 OUTPUT

INTERNAL		1
1	How many lighting circuits require monitoring?	
2	What is the A/C voltage of the monitored lighting circuit?	
3	What is the A/C voltage of the connected batteries?	

### 2 OR MORE OUTPUTS

EXTERNAL		
1	How many lighting circuits require monitoring?	
2	What is the A/C voltage of the monitored lighting circuit?	
3	What is the A/C voltage of the connected batteries?	
4	How many outputs are required? Each output corresponds to a single battery unit	
5	Will the lighting circuit be monitored in parallel or individually? Parallel: If any one goes down then all emergency lighting activates. Individually: Emergency lighting activates only in the area affected by the outage	
6	Are LED indicators required for each circuit? (ZPL) Let's customer know definitively which circuit is down	
7	Does each lighting circuit need a test switch to engage emergency lighting for test purposes? (ZTS)	



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## STANPRO LIGHTING SYSTEMS

*We also offer a wide variety of other lighting lines that will allow you to accomplish all of your lighting project's needs.*



architectural



commercial



industrial



emergency



hazardous

[stanprols.com](http://stanprols.com) in f  



