

# SIGNAL50 WARNING TOWER LIGHTS

WTL-L2B24D3D5D4

## Assembled Stacklights



WTL-SNB120D4



WTL-VB24D3D4



WTL-L2B24Y4



All models shown smaller than actual size.

- Available as Assembled Stacklights or Components
- Six Lens Colors
- Variety of Lamp Types and Voltages
- Single and Dual Bi-Tonal Audible Alarms
- Multiple Mounting Options
- Up to Five Levels of Light or Audible Signaling Conditions
- Interchangeability of Light Option with Same Light Module

SIGNAL50 warning tower lights are the perfect complement to any industrial control system. High grade, heavy duty and comprehensive, this 50 mm space saving line is also flexible and extremely easy to assemble and install.

### Best of Class

In comparing SIGNAL50 warning tower lights to competitive products from manufacturers including Patlite, IDEC, Federal Signal and Werma, the SIGNAL50 line offers more features, approvals and options than any of these major stack light manufacturers.

### Rugged Construction for Industrial Applications

Heavy duty industrial polycarbonate is used to construct all light modules and bases for the SIGNAL50 line. A stainless steel, pole-mount base, set on zinc die-cast metal foot is also available. The entire line meets UL Type 4/4X/13 and IP65 guidelines for use indoors or out. No other manufacturer of competitive product offers this extensive range of environmental approvals.

### Over 100 Combinations of Lenses, Voltages and Illumination Types

Variety and interchangeability are standard with the SIGNAL50 line. Six lens colors are available (green, red, amber, blue, yellow and clear), more than any other major manufacturer. Light modules are offered in four different voltages including 12 and 24 Vac/Vdc, 120 and 240 Vac. Illumination types include incandescent, LED and strobe. A special flashing LED is also available.

## SPECIFICATIONS

**Conformity to Standards:** UL 508;  
(UL File # E183287)—EN60947—5-1;  
EN 61000-6-2; EN50082-2

**Approvals:** UL, cUL, CE

## ENVIRONMENTAL DATA

### Protection Class:

**All Light Modules:** NEMA 4 (IP65),  
4X, 13

**All Sound Modules:** NEMA 4 (IP65),  
4X, 13

**All Bases:** NEMA 4 (IP65), 4X, 13

### Temperature Rating:

**Operation:** -25 to 50°C (-13 to 122°F)

**Storage:** -40 to 85°C (-40 to 185°F)

## MECHANICAL DATA

### Shock and Vibration Resistance

[G]: Based on the weight and style of  
mounting; tower lights are subject to  
damage from shock and vibration

## REFERENCE GUIDELINES FOR MAXIMUM ACCEPTABLE CONDITIONS

### Surface Mount Base or 10 cm

#### Pole Base:

**1 Module Stack:** 150 shock,  
5 vibration

**3 Module Stack:** 45 shock,  
1.5 vibration

**5 Module Stack:** 35 shock,  
0.75 vibration

### Vertical Base or 25 cm Pole Base:

**1 Module Stack:** 95 shock,  
3.5 vibration

**3 Module Stack:** 30 shock,  
1.25 vibration

**5 Module Stack:** 20 shock,  
0.5 vibration

### Recommended Wire Size:

0.5 to 1.5 mm<sup>2</sup> (22 to 14 AWG)

### Recommended Terminal Torque:

0.87 Nm (7 lb-in)

## MATERIALS

### Bases, Caps, Module Housings:

Polycarbonate (94 V-0)

**Lenses:** Polycarbonate (94 V-2)

**Lamp Socket:** Polycarbonate (94 V-2)

**Rubber Seals and Gaskets:** Nitrile  
Rubber

**Pole (Aluminum Pole Assembly):**  
Aluminum

**Pole Base Footing (Aluminum Pole  
Base):** Glass-filled nylon 66

### Conduit (Pole Insulation):

Polystyrene/Polyphenylene Ether Blend

### Mounting Screw/Washers:

Polypropylene

### Certifications UL/cUL File Number:

**All Products:** E183287,  
Guide No. NKCR

**Standard Bases, Light Modules and  
Sound Modules:** EN 60947-5-1

## PERFORMANCE RATINGS

### Light Output Steady Incandescent:

**12 Vac/Vdc:** 0.5 MSCP, 6.3 Lumens

**24 Vac/Vdc:** 2.5 MSCP, 31.4 Lumens

**120 Vac:** 3.0 MSCP, 37.7 Lumens

**240 Vac:** 0.49 MSCP, 6.2 Lumens

### Light Output Flashing Incandescent:

**12 Vac/Vdc:** 0.5 MSCP, 6.3 Lumens

**24 Vac/Vdc:** 2.5 MSCP, 31.4 Lumens

**120 Vac:** 3.0 MSCP, 37.7 Lumens

**240 Vac:** 0.49 MSCP, 6.2 Lumens

### Light Output Strobe: 1.5 Joules per lamp

### Steady, Flashing Socket Mount LED:

**Red:** 100 to 200 mcd

**Green:** 725 to 950 mcd

**Amber:** 160 to 320 mcd

**Blue:** 180 to 210 mcd

**White:** 680 mcd

### Light Modules and Sound Modules

#### Operating Voltage:

**12 Vac/Vdc:** ±10%

**24 Vac/Vdc:** ±10%

**120 Vac:** 110 Vac 50 Hz (±10%);

120 Vac 60 Hz (±10%)

**240 Vac:** 230 Vac 50 Hz (±10%);

240 Vac 60 Hz (±10%)

**Leakage Current Impact:** Some light  
modules may not turn off completely  
when connected to solid state outputs  
which emit leakage current greater than  
3 mA; shunting resistors can be used to  
eliminate the effect of leakage current

### Lamp Life Ratings (Design Life):

Average life under static, no vibration  
conditions, continuous operation

### Incandescent Modules:

**12 Vac/Vdc:** 8000 h

**24 Vac/Vdc:** 7000 h

**120 Vac:** 3000 h

**240 Vac:** 1600 h

**LED Modules:** 100,000 h

**Strobe Modules:** 15,000 h

**Sound Modules:** 20,000 h

## CURRENT CONSUMPTION

### LIGHT MODULES

#### 12 Vac/Vdc:

**Steady Incandescent:** 208 mA

**Flashing Incandescent:** 208 mA

**Steady or Flashing LED:** 47 mA

**Strobe:** 95 mA

#### 24 Vac/Vdc:

**Steady Incandescent:** 271 mA

**Flashing Incandescent:** 271 mA

**Steady or Flashing LED:** 28 mA

**Strobe:** 60 mA

#### 120 Vac:

**Steady Incandescent:** 58 mA

**Flashing Incandescent:** 58 mA

**Steady or Flashing LED:** 11 mA

**Strobe:** 55 mA

#### 240 Vac:

**Steady Incandescent:** 23 mA

**Flashing Incandescent:** 23 mA

**Steady or Flashing LED:** 11 mA

**Strobe:** 30 mA

## SOUND MODULES

**12 Vac/Vdc:** 12 mA

**24 Vac/Vdc:** 25 mA

**120 Vac:** 33 mA

**240 Vac:** 33 mA

## FLASHING FREQUENCY (NUMBER PER MINUTE)

**Flashing Incandescent:** 120; ON/OFF = 1:1

**Flashing LED Lamp:** 120; ON/OFF = 1:1

**Strobe:** 84

**Sound Module-Alternating Mode:** 120;  
ON/OFF = 1:1

### DB Ratings (Sound Module):

All dB (A) ratings determined at a  
distance of 1 meter from the sound  
module; maximum volume ranges  
from 98 to 103 dB (A) (volume adjusted  
by dip switch)

## WEIGHTS

**Modules:** 57 g (1.8 oz)

**Steady with Incandescent Lamp:**  
65 g (2.1 oz)

**Steady with LED Lamp:** 67 g (2.2 oz)

**Flashing with LED Lamp:** 75 g (2.4 oz)

### Strobe:

**12V to 24V:** 70 g (2.3 oz)

**120V to 240V:** 65 g (2.1 oz)

### Sound:

**12V to 24V:** 50 g (1.6 oz)

**120V to 240V:** 60 g (1.9 oz)

### Mount base (Includes Cap):

**Surface:** 40 g (1.3 oz)

**Vertical:** 70 g (2.3 oz)

### Aluminum Pole Mount Base:

**5 cm:** 105 g (3.4 oz)

**10 cm:** 120 g (3.9 oz)

**25 cm:** 148 g (4.5 oz)

**40 cm:** 163 g (5.2 oz)

**50 cm:** 206 g (6.6 oz)

**60 cm:** 234 g (7.5 oz)

**80 cm:** 263 g (8.5 oz)

### Steel Pole Mount Base:

**5 cm:** 320 g (10.3 oz)

**10 cm:** 255 g (8.2 oz)

**25 cm:** 307 g (9.9 oz)

**40 cm:** 462 g (14.9 oz)

**50 cm:** 617 g (17.7 oz)

**60 cm:** 720 g (19.9 oz)

**80 cm:** 824 g (22.2 oz)

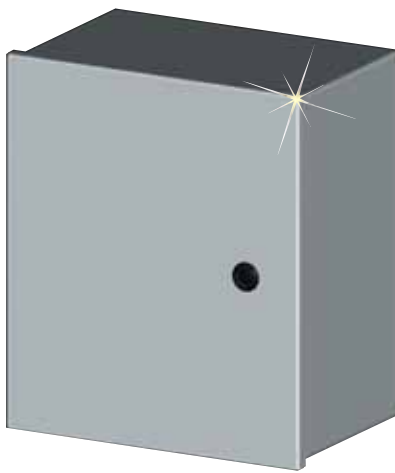
### Junction Box:

**Horizontal Mounting:** 35 g (1.1 oz)

**Vertical Mounting:** 65 g (2.1 oz)

**Magnetic Base:** 270 g (8.7 oz)

For Our Complete Selection Visit [omega.com/nema\\_enclosures](http://omega.com/nema_enclosures)



SCE-6N604LP shown smaller than actual size.

For Our Complete Selection Visit [omega.com/pushbuttons](http://omega.com/pushbuttons)



OMPBD7P-E4PX10 plastic pushbutton, extended button, red, momentary operation with one NO contact shown smaller than actual size.

**To Order** Visit [omega.com/omsl](http://omega.com/omsl) series for Pricing and Details

**SINGLE TIER STACK LIGHTS WITH RED LIGHT MODULE**

MODEL NO.	VOLTAGE	DESCRIPTION
WTL-SNB24D4	24 Vac/Vdc	Surface mount 1/2 NPT base with incandescent steady bulb
WTL-SNB120D4	120 Vac	Surface mount 1/2 NPT base with incandescent steady bulb
WTL-SNB24F4	24 Vac/Vdc	Surface mount 1/2 NPT base with incandescent flashing bulb
WTL-SNB120F4	120 Vac	Surface mount 1/2 NPT base with incandescent flashing bulb
WTL-SNB120Y4	120 Vac	Surface mount 1/2 NPT base with LED bulb
WTL-SNB24Y4	24 Vac/Vdc	Surface mount 1/2 NPT base with LED bulb
WTL-SNB120B4	120 Vac	Surface mount 1/2 NPT base strobe light
WTL-SNB24B4	24 Vac/Vdc	Surface mount 1/2 NPT base strobe light
WTL-L2B24Y4	24 Vac/Vdc	25 cm pole mount base with LED bulb

**TWO TIER STACK LIGHTS, GREEN - RED WITH STEADY LIGHT MODULES**

MODEL NO.	VOLTAGE	DESCRIPTION
WTL-SNB120D3D4	120 Vac	Surface mount 1/2 NPT base with incandescent bulbs
WTL-SNB24D3D4	24 Vac/Vdc	Surface mount 1/2 NPT base with incandescent bulbs
WTL-SNB24Y3Y4	24 Vac/Vdc	Surface mount 1/2 NPT base with LED bulbs
WTL-SNB120Y3Y4	120 Vac	Surface mount 1/2 NPT base with LED bulbs

**THREE TIER STACK LIGHTS, GREEN - AMBER - RED WITH STEADY LIGHT MODULES**

MODEL NO.	VOLTAGE	DESCRIPTION
WTL-SMB12D3D5D4	12 Vac/Vdc	Surface mount M20 base with incandescent bulbs
WTL-SNB12D3D5D4	12 Vac/Vdc	Surface mount 1/2 NPT base with incandescent bulbs
WTL-SNB24D3D5D4	24 Vac/Vdc	Surface mount 1/2 NPT base with incandescent bulbs
WTL-SNB120D3D5D4	120 Vac	Surface mount 1/2 NPT base with incandescent bulbs
WTL-L2B24D3D5D4	24 Vac/Vdc	25 cm pole mount base with incandescent bulbs
WTL-L4B12D3D5D4	12 Vac/Vdc	40 cm pole mount base with incandescent bulbs
WTL-SNB24Y3Y5Y4	24 Vac/Vdc	Surface mount 1/2 NPT base with LED bulbs
WTL-SNB120Y3Y5Y4	120 Vac	Surface mount 1/2 NPT base with LED bulbs

**ADDITIONAL ASSEMBLED STACK LIGHTS**

MODEL NO.	VOLTAGE	DESCRIPTION
WTL-VB24D3F4	24 Vac/Vdc	Two tier incandescent light modules, steady green and flashing red with a black vertical mounting base
WTL-VB24D3D4	24 Vac/Vdc	Two tier incandescent light modules, steady green and red with a black vertical mounting base
WTL-SNB24D3D4AS	24 Vac/Vdc	Two tier incandescent light modules, steady green - red, surface mount 1/2 NPT base and a single circuit, dual tone sound module
WTL-L2B24D3D4AS	24 Vac/Vdc	Two tier incandescent light modules, steady green - red with a 25 cm pole mounting base and a single circuit, dual tone sound module

**Ordering Examples:** WTL-SNB24D4 assembled single tier stack light for 24 Vac/Vdc with surface mounting base with 1/2 NPT center thread or screw connection, red lens with steady light module and incandescent bulb.

WTL-L2B24D3D5D4 assembled 3-tier stack light for 24 Vac/Vdc with 25 cm pole mounting base, green-amber-red lens with steady light module and incandescent bulbs.

## Assembling a Stacklight System

### 1. Select a Base Unit

A variety of base units are available. Bases include a mounting foot, extension tube and pole cap, or you can use a horizontal or vertical flush mount base.

### 2. Select Up to Five Light Modules

Light modules are available in a variety of colors in either steady, steady flashing or Xenon strobe configuration. Incandescent or LED light sources are available. The incandescent lights are lower cost and brighter than the LEDs, however, the LEDs have a greater bulb life. You may use up to 5 light modules or 4 light modules and one single circuit or 3 light modules and one dual circuit sound module.

### 3. Select Incandescent or LED Lamp Bulbs

Please match the LED color to the light module color. Also note the Xenon strobe modules include bulbs.

### 4. Optional Sound Module

The single circuit bi-tonal sound module may be used with up to 4 light modules. The dual circuit sound module may be used with up to 3 light modules.

### 5. Choose an Optional Junction Box

The plastic foot pole bases mount on top of the junction box to facilitate circuit wiring.



OMSL790540900,  
vertical surface  
mounting base  
shown smaller  
than actual size.



OMSL790530900,  
horizontal surface  
mounting base shown  
smaller than actual size.

OMSL790542900  
plastic foot  
shown smaller  
than actual size.

OMSL790552900  
zinc foot  
shown smaller  
than actual size.



OMSL790572900  
aluminum pole  
base, 10 cm  
long, shown with  
OMSL200800900  
vertical mounting  
bracket.

## To Order

### SURFACE MOUNT BASES

MODEL NO.	MOUNTING STYLE	THREAD
OMSL790(*)10900	Horizontal	PG16
OMSL790(*)20900	Horizontal	M20
OMSL790(*)30900	Horizontal	½ NPT
OMSL790(*)40900	Vertical	N/A

### POLE BASES

PLASTIC FOOT WITH ALUMINUM POLE	ZINC DIE-CAST FOOT WITH SS POLE	ALUMINUM POLE BASE WITHOUT FOOT	LENGTH
MODEL NUMBER	MODEL NUMBER	MODEL NUMBER	
OMSL790(*)41900	OMSL790(*)51900	—	5 cm (1.9")
OMSL790(*)42900	OMSL790(*)52900	OMSL790572900	10 cm (3.9")
OMSL790(*)43900	OMSL790(*)53900	OMSL790573900	25 cm (9.8")
OMSL790(*)44900	OMSL790(*)54900	OMSL790574900	40 cm (15.7")
OMSL790(*)45900	OMSL790(*)55900	—	50 cm (19.6")
OMSL790(*)46900	OMSL790(*)56900	—	60 cm (23.6")
OMSL790(*)47900	OMSL790(*)57900	—	80 cm (31.4")

**Note:** (\*) use 1 for gray and 5 for black.

## LIGHT MODULES

### Steady Light Modules

Warning/indicator lights are used to warn the operator or to indicate that a defined action shall be initiated.



### Flashing Light Modules

Flashing signals are used for additional differentiation or as additional information and for additionally emphasize something particular.



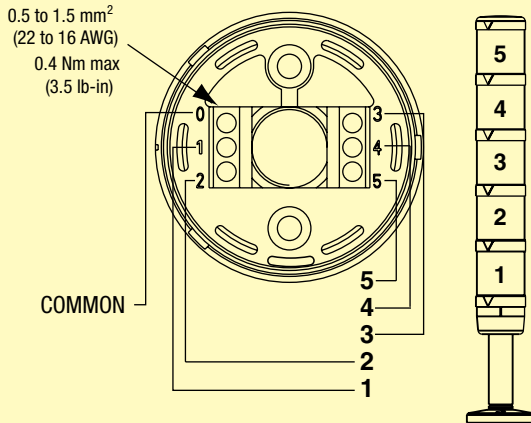
COLOR	MEANING/EXPLANATION	ACTION OF OPERATOR
Red	Emergency dangerous situation	Immediate action for reacting to a dangerous situation
Amber/Yellow	Abnormal situation up-coming critical situation	Monitor and/or action
Green	Normal situation	Optional
Blue	Indication of situation requiring a defined action by the operator	Conclusive action
White	Neutral—no particular meaning for other situation to be used if doubts exist when to use red, yellow, green or blue	Monitor

**Flashing Signals are Particularly Used:**

- Causing Attention
- Prompting Immediate Action
- Indicating a Difference Between Actual Condition
- Indicating a Process Change (Flashing While Changing Over)



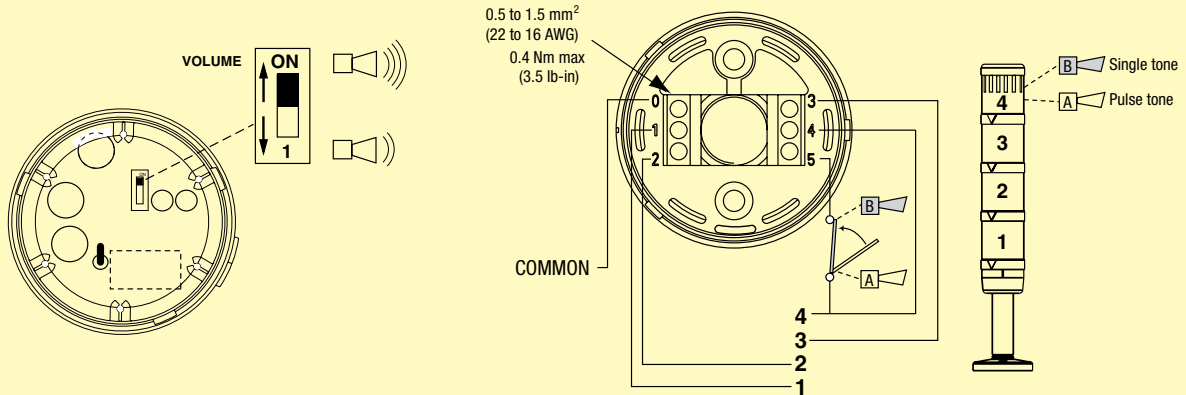
**SIGNAL50 TERMINAL CONNECTIONS**



**NOTE:** Five light modules (or four light modules and one sound module) maximum per assembly.

**DUAL CIRCUIT SOUND MODULE**

Dimensions: mm (inch)



**To Order**

MODEL NO.	DESCRIPTION
OMSL75000(*)900	Steady light modules accept 12V...230V Incandescent, LED or flashing LED bulbs (bulbs not included)
OMSL76000(*)(**)	Flashing light module, select color and voltage, requires steady bulb (bulb not included)
OMSL77000(*)(**)	Strobe light module, select color and voltage, (bulb included)

(\*) select color "1" = Amber, "2" = Red, "4" = Clear, "5" = Blue, "6" = Green, "7" = Yellow

(\*\*) select voltage "405" = 12 to 24 Vac/dc, "310" = 120 Vac, "313" = 240 Vac

**Note:** When using LED bulbs, match the bulb color to the light module color.



# INCANDESCENT BULBS



All models are shown actual size.

# LED BULBS



All models are shown actual size.

## To Order

MODEL NO.	TYPE	DESCRIPTION
OMSL890010904-5PK	Steady	Incandescent lamp 12 Vac/Vdc, sold in 5 packs
OMSL890010905-5PK	Steady	Incandescent lamp 24 Vac/Vdc, sold in 5 packs
OMSL890010910-5PK	Steady	Incandescent lamp 120 Vac, sold in 5 packs
OMSL890010913-5PK	Steady	Incandescent lamp 240 Vac, sold in 5 packs
OMSL89300(*)404	Steady	LED 12 Vac/Vdc, for use with steady or flashing light module
OMSL89300(*)405	Steady	LED 24 Vac/Vdc, for use with steady or flashing light module
OMSL89300(*)310	Steady	LED 120 Vac, for use with steady or flashing light module
OMSL89300(*)313	Steady	LED 240 Vac, for use with steady or flashing light module
OMSL89301(*)404	Flashing	LED 12 Vac/Vdc, for use with steady or flashing light module
OMSL89301(*)405	Flashing	LED 24 Vac/Vdc, for use with steady or flashing light module
OMSL89301(*)310	Flashing	LED 120 Vac, for use with steady or flashing light module
OMSL89301(*)313	Flashing	LED 240 Vac, for use with steady or flashing light module

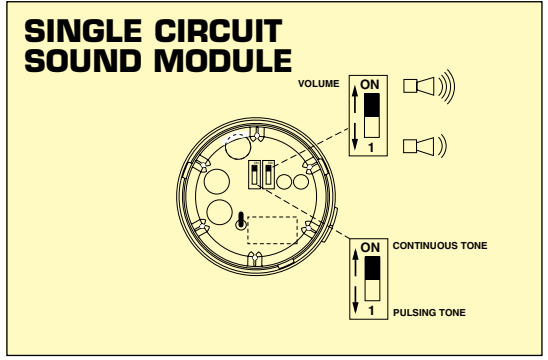
(\*) select color "1" = Amber, "2" = Red, "4" = Clear, "5" = Blue, "6" = Green, "7" = Yellow

Note: When using LED bulbs, match the bulb color to the light module color.

# SOUND MODULES



OMSL781500310 shown smaller than actual size.



To Order			
DESCRIPTION	HOUSING COLOR	VOLTAGE	MODEL NO.
Single Circuit Sound Module—Select either single tone or pulsing tone via internal DIP-switch. Low or high volume is also selectable. <sup>1</sup>	Gray	12 Vac/Vdc	OMSL781100404
		24 Vac/Vdc	OMSL781100405
		120 Vac	OMSL781100310
		240 Vac	OMSL781100313
	Black	12 Vac/Vdc	OMSL781500404
		24 Vac/Vdc	OMSL781500405
		120 Vac	OMSL781500310
		240 Vac	OMSL781500313
Dual Circuit Sound Module—Used in applications where two types or audible alert are required to indicate different levels of machine status. Single tone is activated by one circuit and pulsing tone by the second circuit. Low or high volume is selectable by internal DIP-switch. <sup>1,2</sup>	Gray	12 Vac/Vdc	OMSL782100404
		24 Vac/Vdc	OMSL782100405
		120 Vac	OMSL782100310
		240 Vac	OMSL782100313
	Black	12 Vac/Vdc	OMSL782500404
		24 Vac/Vdc	OMSL782500405
		120 Vac	OMSL782500310
		240 Vac	OMSL782500313

<sup>1</sup> Sound modules must be installed as the last component (top level) of the tower light assembly.

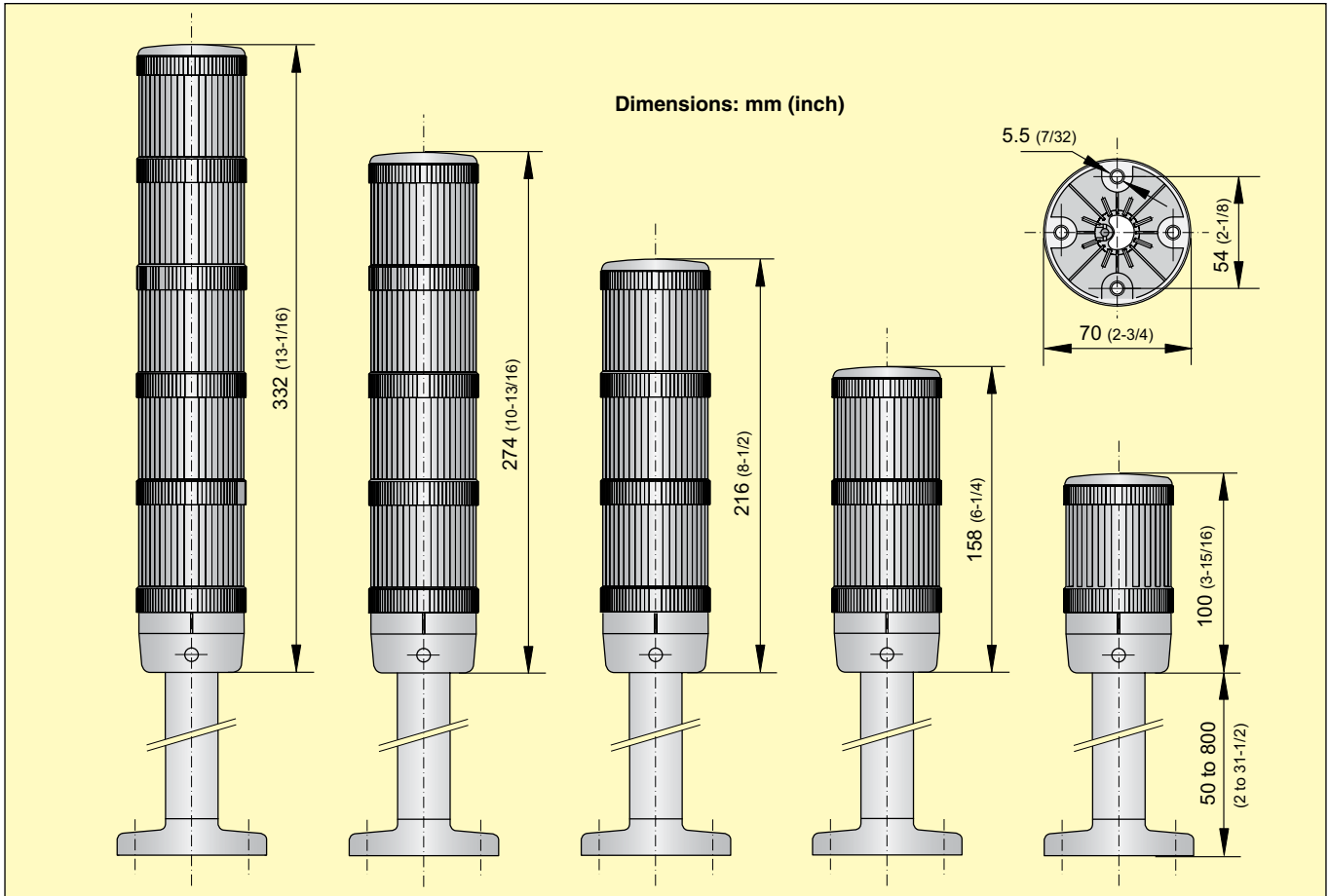
<sup>2</sup> Tower light assemblies containing dual circuit sound modules may contain a maximum of four modules, consisting of three Light Modules and the Sound Module.

# JUNCTION BOXES FOR USE WITH PLASTIC FOOT POLE MOUNT BASES ONLY



OMSL841102900 shown smaller than actual size.

DESCRIPTION	HOUSING COLOR	THREADING	MODEL NO.
Horizontal Surface Mounting	Gray	½ NPT	OMSL841102900
	Black	½ NPT	OMSL841502900
Horizontal Mounting with Magnetic Base	Gray	½ NPT	OMSL841122900
	Black	½ NPT	OMSL841522900
Vertical Surface Mounting	Gray	½ NPT	OMSL841112900
	Black	½ NPT	OMSL841512900



## To Order

ACCESSORIES		
MODEL NO.	DESCRIPTION	FOR USE WITH
<b>OMSL700000900</b>	Locking screws (5), used top light and sound modules from separating	All modules
<b>OMSL698803002</b>	Replacement cap, gray	All modules
<b>OMSL698803003</b>	Replacement cap, black	All modules
<b>OMSL 698800002</b>	Replacement gaskets and o-rings (5 pieces per bag)	Pole mount base (gasket)
<b>OMSL 698800003</b>	Replacement gaskets and o-rings (5 pieces per bag)	Modules, bases and caps (o-rings)
<b>WTL-BULBPL</b>	Incandescent bulb puller	Steady and flashing modules using incandescent bulbs

## Ordering Example

WARNING TOWER LIGHT ASSEMBLY WITH 3 LIGHT MODULES	
Quantity 1	<b>OMSL790542900</b> , pole base with black plastic base and cap and aluminum pole
Quantity 1	<b>OMSL750006900</b> , green steady light module
Quantity 1	<b>OMSL750001900</b> , amber steady light module
Quantity 1	<b>OMSL750002900</b> , red steady light module
Quantity 1	<b>OMSL890010910-5PK</b> , 120 Vac steady incandescent lamps

WARNING TOWER LIGHT ASSEMBLY WITH 2 LIGHT MODULES	
Quantity 1	<b>OMSL790530900</b> , black horizontal surface mounting base
Quantity 1	<b>OMSL 750006900</b> , green light modules, steady
Quantity 1	<b>OMSL893006405</b> , green 24 Vac/dc steady LED bulb
Quantity 1	<b>OMSL750002900</b> , red light module, steady
Quantity 1	<b>OMSL893002405</b> , red 24 Vac/dc steady LED bulb