Features



Banner's TL70 Tower Light is a 70 mm, modular LED indicator with extremely bright and uniform light. The modularity gives the user flexibility to customize tower lights as needed and change positions in the field. The TL70 is also available preassembled for easy installation.

- 100 to 240 V AC operation
- Connection options include 1/2-20 quick disconnect and cabled versions
- Uses the same light and audible segments as the DC voltage powered TL70
- Light segments have user-selectable solid ON or flashing
- Up to six colors, or five colors plus audible, in one device
- Rugged, water-resistant IP65 housing with UV-stabilized material
- Bright, uniform indicator segments appear gray when off to eliminate false indications from ambient light

Models

TL70 Base - Model Key

Housing	Power	—	Connection[1]	Housing Color
B-TL70	**Z**	**—**	**Q5**	
Base segment	Z = AC		5 = 2 m (6.5 ft) unterminated 5-wire PVC-jacketed cable (1-4 modules) 7 = 2 m (6.5 ft) unterminated 7-wire PVC-jacketed cable (5-6 modules) Q5 = Integral 5-pin 1/2 in. 20UNF male quick-disconnect connector (1-4 modules)	Blank = Black C = Gray

TL70 Segments - Model Key

Housing	—	Color/Alarm	Housing Color
SG-TL70	**—**	**R**	
TL70 Segment		G = Green Y = Yellow R = Red B = Blue W = White O = Orange A = Standard Audible AL = Loud Audible ALM = Loud Multi-Tone Audible AP = Programmable Audible	Blank = Black C = Gray

Select the 5-pin/wire base for tower light configurations of up to 4 modules. Select the 7-wire base for tower light configurations of up to 6 modules.

- Example base model number: B-TL70Z-Q5
- Example light segment model number: SG-TL70-G
- Example audible segment model number: SG-TL70-A

TL70 Pre-Assembled Models - Model Key

Housing	Color/Position						Audible Alarm[2]	Housing Color	Connection[1]
	1	2	3	4	5	6			
TL70Z	**W**	**B**	**G**	**Y**	**R**				**Q**

Continued on page 2

[1] Quick-disconnect connector models require a mating cordset.
[2] Not available with six module lights.

Original Instructions
28-Aug-25

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191349
p/n: 191349 Rev. E

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Continued from page 1

Housing	Color/Position						Audible Alarm	Housing Color	Connection[1]
	1	2	3	4	5	6			
	Blank = None G = Green Y = Yellow R = Red B = Blue W = White O = Orange						Blank = None A = Standard Audible AL = Loud Audible AP = Programmable Audible	Blank = Black C = Gray	Blank = 2 m (6.5 ft) integral PVC-jacketed cable Q = Integral 5-pin 1/2 in. 20UNF male quick-disconnect connector[3]

- Example pre-assembled model number: TL70ZGYRAQ.

Use a 5-pin cordset for 1 to 4 modules.

WARNING:
- **Risk of hearing loss**
- All effective warning horns produce loud sounds that could cause, in certain situations, permanent hearing loss.
- Install the device far enough away from potential listeners to limit their exposure while still maintaining its effectiveness. Reference OSHA Code of Federal Regulations 1910.95 Noise Standard for guidelines about permissible noise exposure levels.

For more information regarding other TL70 Audible models, refer to the following documents:

- TL70 Loud Multi-Tone Audible Tower Light Module datasheet (p/n 195189)
- TL70 Programmable Audible Tower Light Module datasheet (p/n 196627)

Configuring the Modules



Turn on the appropriate DIP switch to set the order of the components, counting up from the tower light's base.

[3] Limited to four module lights.

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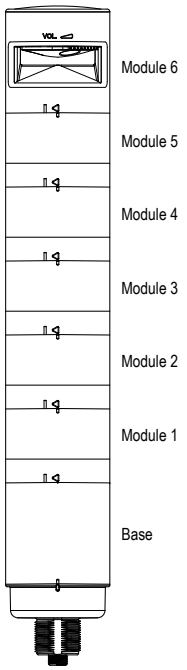
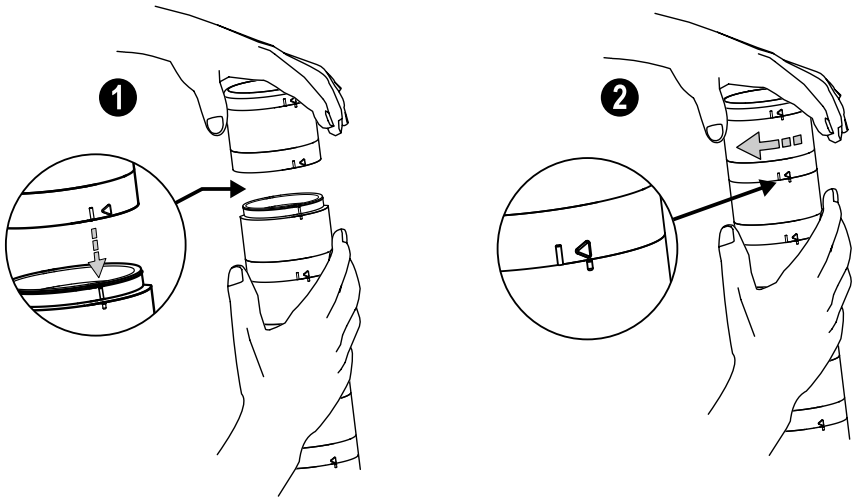


Assembly Options		DIP Switches							
		1	2	3	4	5	6	7	8
Light and Standard Audible Components	Module 1	ON							
	Module 2		ON						
	Module 3			ON					
	Module 4				ON				
	Module 5					ON			
	Module 6						ON		
Light and Module Flash Rate	3 Hz							ON	OF
	1.5 Hz							ON	ON
	Solid On*							OFF	OFF
Standard Audible Module Settings	Pulse 1.5 Hz							ON	OFF
	Chirp Alarm							ON	ON
	Siren Alarm							OFF	ON
	Continuous Alarm*							OFF	OFF

Assembly Options		DIP Switches									
		1	2	3	4	5	6	7	8	9	10
Loud Audible Module Settings	Pulse 1.5 Hz							ON	OFF		
	Chirp Alarm							ON	ON		
	Siren Alarm							OFF	ON		
	Continuous Alarm*							OFF	OFF		
	Low Intensity*									OFF	OFF
	Med. Intensity									ON	OFF
	Med./Loud Intensity									OFF	ON
	Loud Intensity									ON	ON

* Factory default setting

Assembling the Modules



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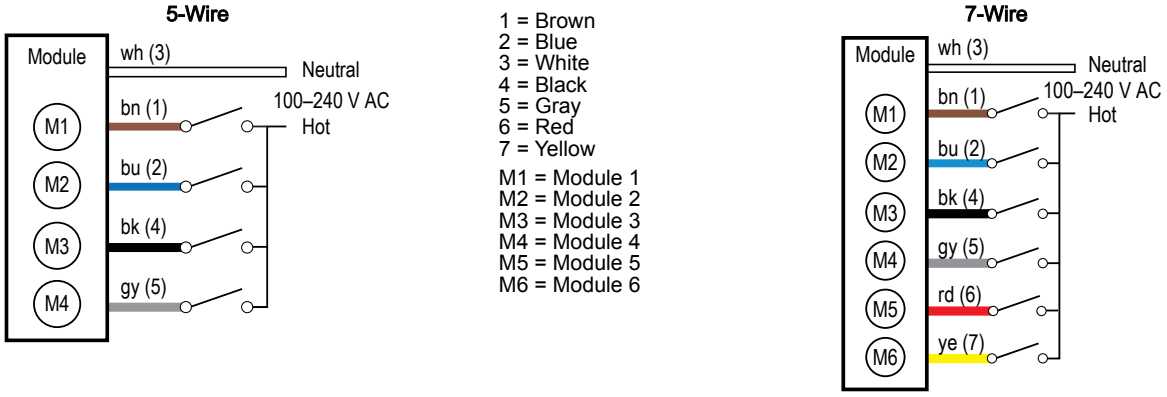
To assemble the modules:

1. Align the notches on each module and press together.
2. Rotate the top module clockwise to lock into place (notches shown in the locked position).

NOTE: DIP switches should remain in the default off position.

Wiring



Specifications

Supply Voltage and Current

100 V AC to 240 V AC; 50 Hz to 60 Hz

Maximum current per color or audible module:

70 mA at 120 V AC and 60 Hz
50 mA at 230 V AC and 50 Hz

Supply Protection Circuitry

Protected against transient voltages

Leakage Current Immunity

500 µA

Application Note: The use of relay output PLC is recommended since there is no leakage current. Solid state output PLCs often have leakage current above 1 mA and, therefore, turn the light on in the off state. To counteract the leakage current, a shunt resistor must be used. A resistor must be applied from the neutral wire of the device to the hot wire of each channel of the device.

Indicators

1 to 6 colors depending on model: Green, Red, Yellow, Blue, White, and Orange

Flash rates: 1.5 Hz ±10% and 3 Hz ±10%

LEDs are independently selected

Indicator Response Time

Off Response: 20 ms (maximum)

On Response: 240 ms (maximum)

Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates[4]		Lumen Output (Typical at 25 °C)
		x	y	
Green	525 nm	–	–	92
Red	625 nm	–	–	40
Yellow	590 nm	–	–	22
Blue	470 nm	–	–	32
White	5000 K	–	–	125
Orange	–	0.66	0.33	33

Audible Alarm

Standard Audible Alarm: 2.6 kHz ± 250 Hz oscillation frequency; maximum intensity (typical) 92 dB at 1 m (3.3 ft)

Loud Audible Alarm: 2.6 kHz ± 250 Hz oscillation frequency; maximum intensity (typical) at 1 m (3.3 ft) (see table)

DIP Switches		Max Intensity (Loud Audible)
9	10	
ON	ON	Intensity 4: 101 dB
OFF	ON	Intensity 3: 99 dB
ON	OFF	Intensity 2: 92 dB
OFF	OFF	Intensity 1: 85 dB

[4] Refer to CIE 1931 chromaticity diagram or color chart, to show equivalent color with indicated color coordinates.

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Audible Adjustment

Standard Audible Alarm: Mechanical adjustment: Rotate the cover until the desired volume is reached

Loud Audible Alarm: Electronic adjustment: Select the desired volume using DIP switches 9 and 10

Typical Reduction in Sound Intensity with Audible Adjustment (maximum to minimum):

- **Standard Audible:** 8 dB
- **Loud Audible:** 16 dB

Construction

Bases, segments, covers: polycarbonate

Connections

Integral 5-pin 1/2 in. 20UNF male quick-disconnect connector, 2 m (6.5 ft) unterminated 5-wire PVC-jacketed cable, or 2 m (6.5 ft) unterminated 7-wire PVC-jacketed cable, depending on model

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 0.5 mm peak-to-peak amplitude per IEC 60068-2-6

Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27

Operating Conditions

–40 °C to +50 °C (–40 °F to +122 °F)

95% at +50 °C maximum relative humidity (non-condensing)

Environmental Rating

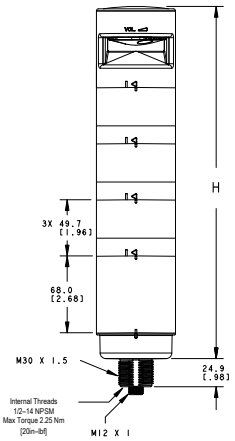
IP65

Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Dimensions

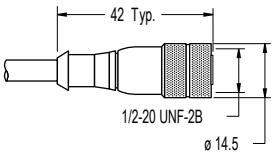
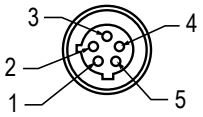
All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

Image	Model	Height (H)
	1 light module	155.6 mm (6.13 in)
	1 light module, 1 audible module	212.3 mm (8.36 in)
	2 light modules	205.3 mm (8.08 in)
	2 light modules, 1 audible module	262 mm (10.31 in)
	3 light modules	255 mm (10.04 in)
	3 light modules, 1 audible module	311.7 mm (12.27 in)
	4 light modules	304.7 mm (12 in)
	4 light modules, 1 audible module	361.4 mm (14.23 in)
	5 light modules	354.4 mm (13.95 in)
	5 light modules, 1 audible module	411.1 mm (16.19 in)
	6 light modules	404.1 mm (15.91 in)

Accessories

Cordsets

All measurements are listed in millimeters, unless noted otherwise. The measurements provided are subject to change.

5-Pin Single-Ended 1/2-in Dual Key Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQAC2-506	2 m (6.56 ft)	Straight		 1 = Brown 2 = Blue 3 = White 4 = Black 5 = Gray
MQAC2-515	5 m (16.4 ft)			
MQAC2-530	9.14 m (30 ft)			

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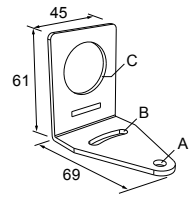
Mounting Brackets

All measurements are listed in millimeters, unless noted otherwise. The measurements provided are subject to change.

SMB30A

- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel

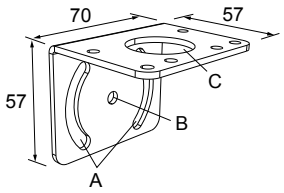
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



SMB30MM

- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor

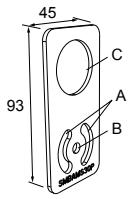
Hole center spacing: A = 51, A to B = 25.4
Hole size: A = 42.6 × 7, B = ø 6.4, C = ø 30.1



SMBAMS30P

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel

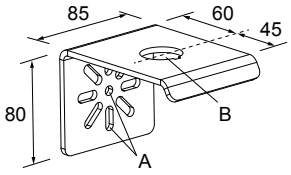
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



SSA-MBK-EEC1

- Single 30 mm hole
- 8 gauge steel, black finish (powder coat)
- Front surface for customer-applied labels

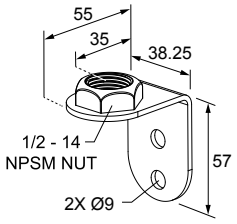
Hole size: A = ø 7 , B = ø 30



LMBE12RA35

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 35 mm

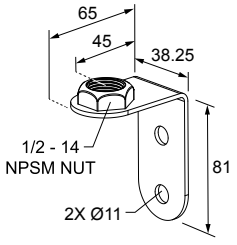
Hole center spacing: 20.0



LMBE12RA45

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 45 mm

Hole center spacing: 35.0



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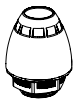
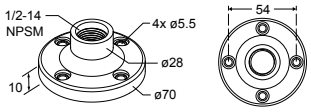
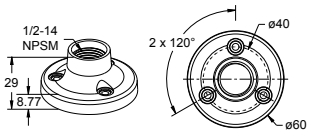
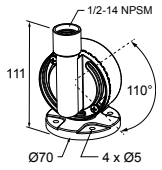
Elevated Mount System

Model			Description	Components
SA-M30 - Black Polycarbonate			• Streamlined black PC or Gray PC thread cover • Covers the outer M30 threads on the light's base • Mounting hardware included	
SA-M30C - Gray Polycarbonate				
Polished 304 Stainless Steel	**Black Anodized Aluminum**	**Clear Anodized Aluminum**	• Elevated-use stand-off pipe (½ in. NPSM/DN15) • Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface • ½ in. NPT thread at both ends: one end screws into the internal threads of the light's base, and one end screws into the mounting base adapter/cover • Compatible with most industrial environments	
SOP-E12-150SS 150 mm (6 in) long	**SOP-E12-150A** 150 mm (6 in) long	**SOP-E12-150AC** 150 mm (6 in) long		
SOP-E12-300SS 300 mm (12 in) long	**SOP-E12-300A** 300 mm (12 in) long	**SOP-E12-300AC** 300 mm (12 in) long		
SOP-E12-900SS 900 mm (36 in) long	**SOP-E12-900A** 900 mm (36 in) long	**SOP-E12-900AC** 900 mm (36 in) long		
SA-E12M30 - Black Acetal			• Streamlined black acetal or white UHMW mounting base adapter/cover • Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole • Mounting hardware included	
SA-E12M30C - White UHMW				

Pipe Mounting Flange			
Model	**Description**	**Construction**	
SA-F12	• Elevated-use stand-off pipes (½ in, NPSM/DN15) • M5 mounting hardware and nitrile gasket included	Die-cast zinc base with black paint	
SA-F12-3	• Elevated-use stand-off pipes (½ in, NPSM/DN15) • M4 mounting hardware and nitrile blend gasket included	Black Polycarbonate	

Foldable Mounting Brackets			
Model	**Description**	**Construction**	
SA-FFB12	• For use with 1/2 inch stand-off pipes • Stainless steel hardware	Black polycarbonate	
SA-FFB12C		Gray polycarbonate	

LMB Sealed Right-Angle Bracket

Model	Description	
LMB30RA - Black polycarbonate **LMB30RAC** - Gray polycarbonate	• **Direct-Mount Models** • Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets.	

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Continued from page 7

Model	Description	
LMBE12RA - Black polycarbonate **LMBE12RAC** - Gray polycarbonate	• **Pipe-Mount Models** • Bracket kit with base, ½-14 pipe adapter, set screw, fasteners, O-rings, and gaskets • For use with stand-off pipe (listed and sold separately)	

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