

# SPECIFICATIONS

[ General Specifications ]

Model	5 tiers	LS7-502(D/S)BWC9(D/N)-△△△△△※1※2					
	4 tiers	LS7-402(D/S)BWC9(D/N)-△△△△△※1※2					
	3 tiers	LS7-302(D/S)BWC9(D/N)-△△△△△※1※2					
	2 tiers	LS7-202(D/S)BWC9(D/N)-△△△△△※1※2					
UL Registered Model		LS7-_02(D/S)BWC (Tower only)					
Rated Voltage		DC24V					
Operating Voltage Range		Rated Voltage ±10%					
Current Consumption		Per Unit					
		Red	Amber	Green	Blue	Clear	Buzzer
		Typ.	20mA	30mA	30mA	30mA	30mA
		Max.	35mA	40mA	40mA	40mA	55mA
Power Consumption		0.48W	0.72W	0.72W	0.72W	0.72W	0.96W
Inrush Current		150mA					
Standby Current※3		10+/-5mA					
Operating Amb. Temp.		-30°C to +60°C					
Operating Amb. Humidity		Less than 90% (No condensation)					
Mounting Location		Indoors					
Mounting Direction		Upright					
Protection Rating		IP69K					
Environmental Condition		Install the signal light on a sturdy and level surface					
Vibration Resistance		19.6m/s <sup>2</sup>					
Insulation Resistance		More than 1MΩ at 500VDC between the terminals and the chassis					
Withstand Voltage		500VAC applied for 1 min between terminals & chassis without breaking insulation					
Sound Pressure Level		Max.: more than 82dB (at 1m) Min.: less than 70dB (at 1m)					
Environmental Condition		Front direction from the center at 1 meter with dB meter set at "A" weight					
Alarm Sound		Continuous Tone					
Luminous Intensity		Red: more than 490mcd; Amber: more than 1140mcd; Green: more than 940mcd; Blue: more than 195mcd; White: more than 1000mcd					
Mass (Tolerance ±10%)		0.40 kg					
Outer Dimensions		Refer to the Dimension Drawing					
Conformity Standards (Tower Only)※4		UL 508, CSA-C22.2 No. 14 EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581)					
Remarks		※1 : △=R/Y/G/B/C/N (LED Color: R=Red, Y=Amber, G=Green, B=Blue, C=Clear/White, N=Blank) ※2 : "△△△△△" is the tower's LED color sequence. Left to right in the part no. means top to bottom on the tower. ※3 : Additional standby current present in towers with alarm(s) installed. ※4 : 1/2"NPT Mount is RoHS compliant					
Dwg No:	LS7-02BWC9-PLUS (1 of 2)					Approved	Drawn:
<b>PATLITE (U.S.A.) Corporation</b>					P. Mizuki 02.Dec.'14	C. Wallace 02.Dec.'14	

[ Model Number Configuration ]

LS7 - 5 0 2 D B W C 9 N - RYGB C

No. of Lighting Units  
 2 : 2 LED Tiers  
 3 : 3 LED Tiers  
 4 : 4 LED Tiers  
 5 : 5 LED Tiers

Body Color  
 Blank : Off White  
 D : Dark Gray  
 S : Silver

Wiring  
 C : M12 Connector  
 Mounting  
 W : Direct Installation

Base Color  
 N : Natural White  
 D : Dark Gray

LED Colors in order from top to bottom (5 Tiers)  
 R : Red  
 Y : Amber  
 G : Green  
 B : Blue  
 C : Clear/White  
 N : Blank

Rated Voltage  
 02 : 24V DC

Optional Function  
 None : No Alarm  
 B : One Alarm

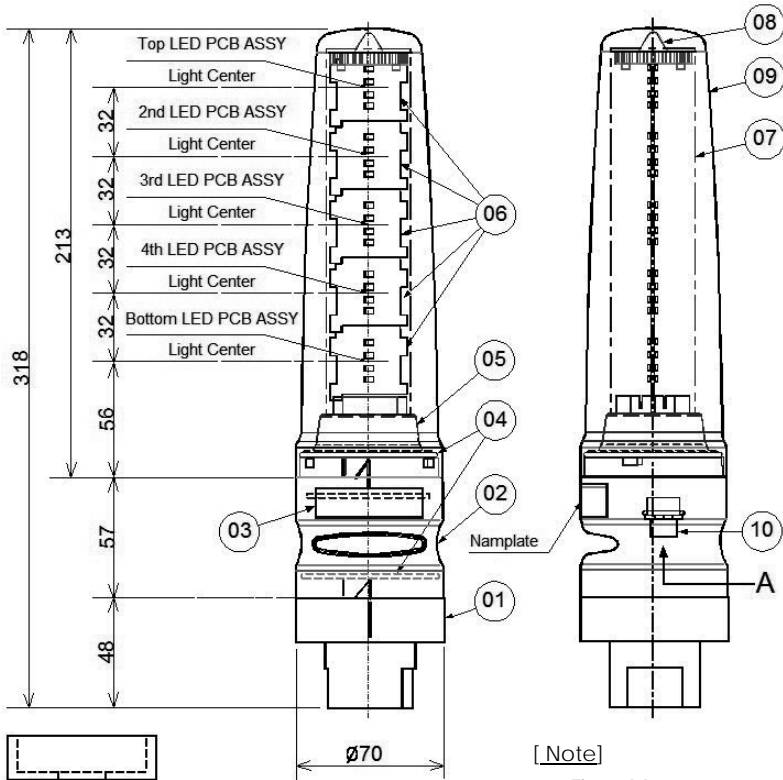
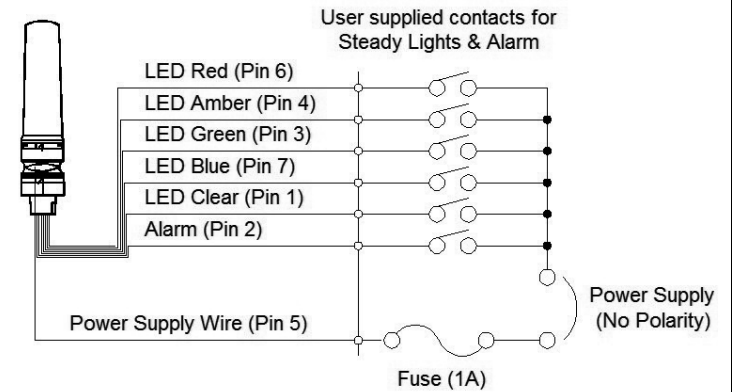


Fig. 1 : Volume Adjustment Location (View 'A')

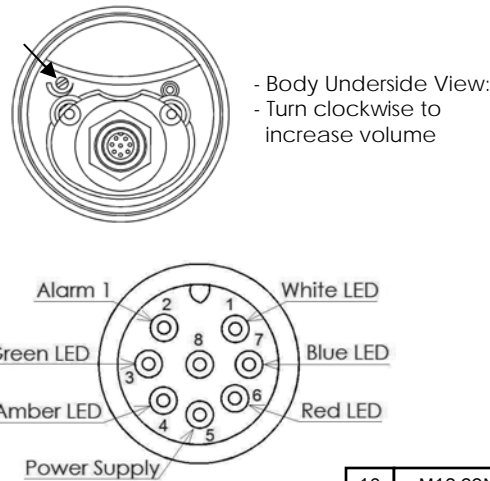
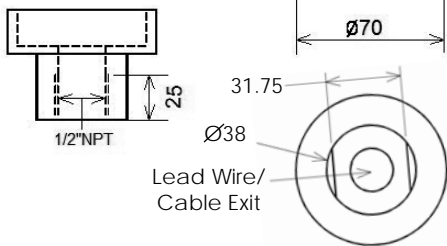


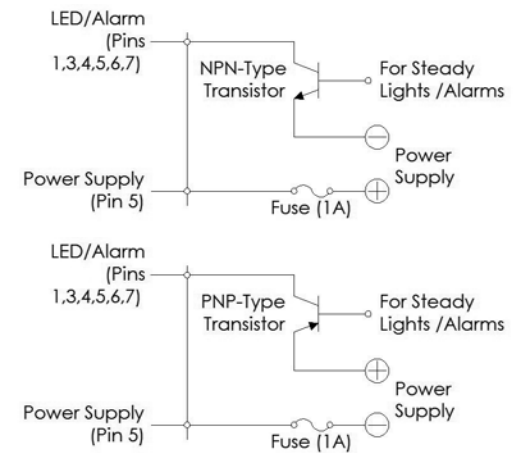
Fig. 2 : M12 Connector Pin Layout (View 'A')



[ Note ]

1. The M12 connector and the alarm volume adjustment are located on the underside of the body and are accessible by removing the mount (see Fig. 1).
2. Be sure to replace the mount completely, turning until it snaps into place, to maintain the IP69K rating.
3. The cable used for connecting to the M12 connector is an optional part (separate purchase).

Transistor Drive Examples



No.	Part Name	Qty	Material & Size & Finish	Remarks
10	M12 CONNECTOR	1	XS2M-D824-4 (OMRON)	
09	OUTER COVER	1	PC	
08	CAP	1	Silicon	
07	INNER LENS	1	PC	
06	LED PCB ASSY	5	LED Color : R,Y,G,B,C,N	
05	INNER LENS BRACKET	1	Heatproof ABS, (S : Silver painting)	
04	O-RING	2	Silicon	
03	ALARM PCB ASSY	1		
02	ALARM CASE	1	Heatproof ABS, (S : Silver painting)	
01	MOUNT	1	Delrin	
Name		Model No: LS7-□02(D/S)BWC(D/N)9		
Specifications / Dimensions		Dwg No: LS7-02BWC9-PLUS (2 of 2)		
PATLITE (U.S.A.) Corporation		Units	By	Date
		mm	CW	12/02/2014

# SPECIFICATIONS

[ General Specifications ]

Model	5 tiers	LS7-502(D/S)FBWH9(D/N)-△△△△△※1※2					
	4 tiers	LS7-402(D/S)FBWH9(D/N)-△△△△△※1※2					
	3 tiers	LS7-302(D/S)FBWH9(D/N)-△△△△△※1※2					
	2 tiers	LS7-202(D/S)FBWH9(D/N)-△△△△△※1※2					
UL Registered Model		LS7_02(D/S)FBWH (Tower only)					
Rated Voltage		DC24V					
Operating Voltage Range		Rated Voltage ±10%					
Current Consumption		Per Unit					
		Red	Amber	Green	Blue	Clear	Alarm
		Typ.	20mA	30mA	30mA	30mA	30mA
		Max.	35mA	40mA	40mA	40mA	55mA
Power Consumption		0.48W	0.72W	0.72W	0.72W	0.72W	0.96W
Inrush Current		150mA					
Standby Current※3		10+/-5mA					
Operating Amb. Temp.		-30°C to +60°C					
Operating Amb. Humidity		Less than 90% (No condensation)					
Mounting Location		Indoors					
Mounting Direction		Upright					
Protection Rating		IP69K					
Environmental Condition		Install the signal light on a sturdy and level surface					
Vibration Resistance		19.6m/s <sup>2</sup>					
Insulation Resistance		More than 1MΩ at 500VDC between the terminals and the chassis					
Withstand Voltage		500VAC applied for 1 min between terminals & chassis without breaking insulation					
Flashing Rate		60+/-12 Flashes Per Minute					
Sound Pressure Level		[Alarm 1] Max.: more than 82dB (at 1m) Min.: less than 70dB (at 1m)					
		[Alarm 2] Max.: more than 85dB (at 1m) Min.: less than 70dB (at 1m)					
Environmental Condition		Front direction from the center at 1 meter with dB meter set at "A" weight					
Luminous Intensity		Red: more than 490mcd; Amber: more than 1140mcd; Green: more than 940mcd; Blue: more than 195mcd; White: more than 1000mcd					
Mass (Tolerance ±10%)		0.40 kg					
Outer Dimensions		Refer to the Dimension Drawing					
Conformity Standards (Tower Only)※4		UL 508, CSA-C22.2 No. 14 EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581)					
Remarks		※1 : △=R/Y/G/B/C/N (LED Color: R=Red, Y=Amber, G=Green, B=Blue, C=Clear/White, N=Blank) ※2 : "△△△△△" is the tower's LED Color Sequence. Left to right in the part no. means top to bottom on the tower. ※3 : Additional standby current present in towers with alarm(s) installed. ※4 : 1/2"NPT Mount is RoHS compliant					
Dwg No:	LS7-02FBWH9-PLUS (1 of 2)				Approved	Drawn:	
<b>PATLITE (U.S.A.) Corporation</b>					P. Mizuki 02.Dec.'14	C. Wallace 02.Dec.'14	

[ Model Number Configuration ]

**LS7 - 5 0 2 D F B W H 9 N - R Y G B C**

No. of Lighting Units  
 2 : 2 LED Tiers  
 3 : 3 LED Tiers  
 4 : 4 LED Tiers  
 5 : 5 LED Tiers

Body Color  
 Blank : Off White  
 D : Dark Gray  
 S : Silver

Rated Voltage  
 02 : 24V DC

Optional Function  
 Blank : Steady Only  
 FB : With Flashing/Alarms

Mounting  
 W : Direct Installation

Wiring  
 H : Lead Wire

Base Color  
 N : Natural White  
 D : Dark Gray

LED Colors in order from top to bottom (5 Tiers)  
 R : Red  
 Y : Amber  
 G : Green  
 B : Blue  
 C : Clear/White  
 N : Blank

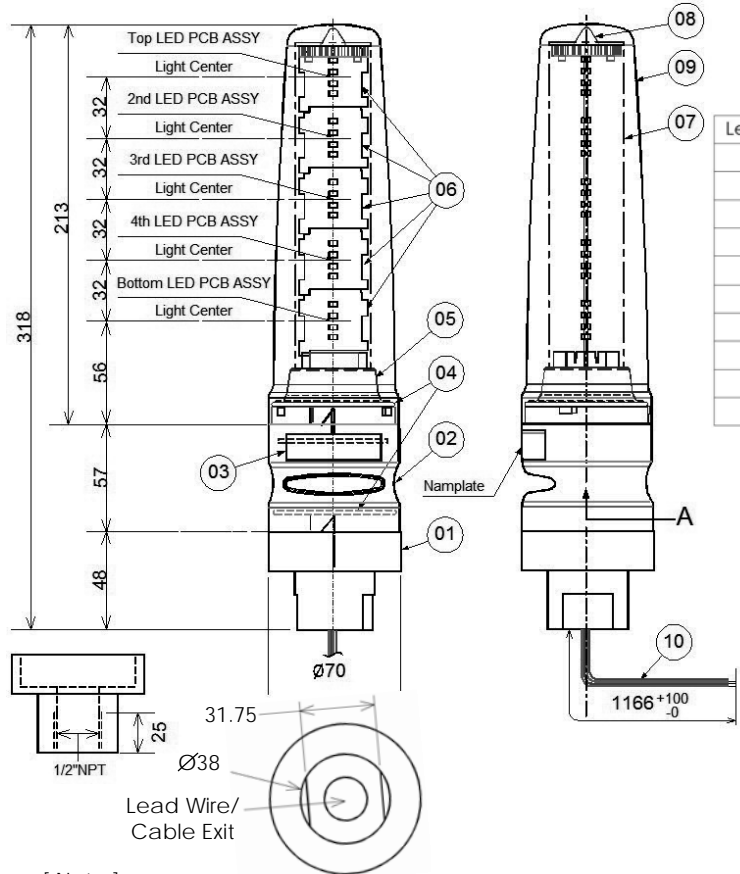
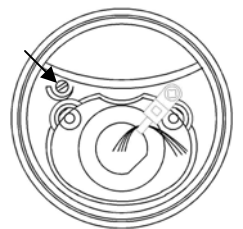


Chart 1 : Lead Wire Function

Lead Wire Color	Function
Red	Red LED
Orange	Amber LED
Green	Green LED
Blue	Blue LED
White	White LED
Purple	Buzzer 1
Sky Blue	Buzzer 2
Brown	Common Flashing Wire
Gray	Power Supply Wire
Yellow	Power Supply Wire

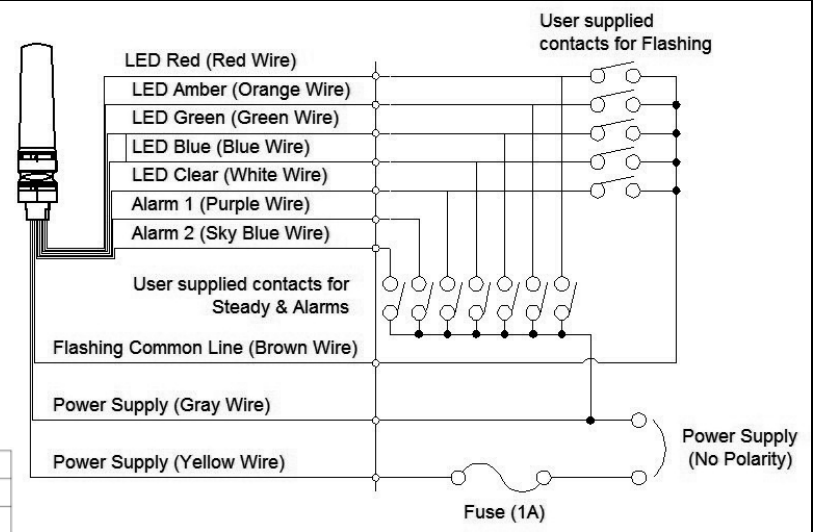
Fig. 1 : Volume Adjustment Location (View 'A')



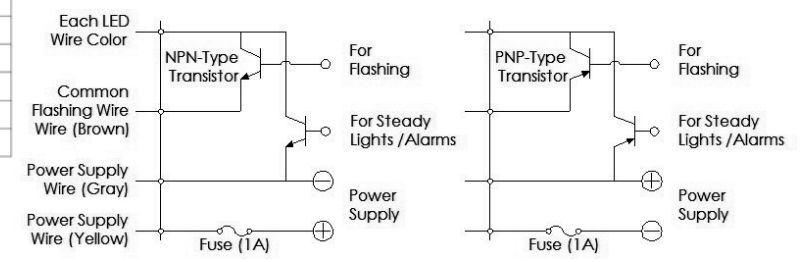
- Body Underside View:  
 - Turn clockwise to increase volume

[ Note ]

- The alarm volume adjustment is located on the underside of the body and is accessible by removing the mount. (see Fig. 1).
- Be sure to replace the mount completely, turning until it snaps into place, to maintain the IP69K rating.
- When there are unused lead wires for the LED Tiers, be sure to separately insulate the end of each unused lead wire.



Transistor Drive Examples



10	LEAD WIRE ASSY	1	UL 1007 AWG22	
09	OUTER COVER	1	PC	
08	CAP	1	Silicon	
07	INNER LENS	1	PC	
06	LED PCB ASSY	5	LED Color : R,Y,G,B,C,N	
05	INNER LENS BRACKET	1	Heatproof ABS, (S : Silver painting)	
04	O-RING	2	Silicon	
03	FB PCB ASSY	1		
02	ALARM CASE	1	Heatproof ABS, (S : Silver painting)	
01	MOUNT	1	Delrin	
No.	Part Name	Qty	Material & Size & Finish	Remarks
Name		Model No: LS7-02(D/S)FBWH(D/N)9		
Specifications / Dimensions		Dwg No: LS7-02FBWH9-PLUS (2 of 2)		
PATLITE (U.S.A.) Corporation		Units	By	Date
		mm	CW	12/02/2014