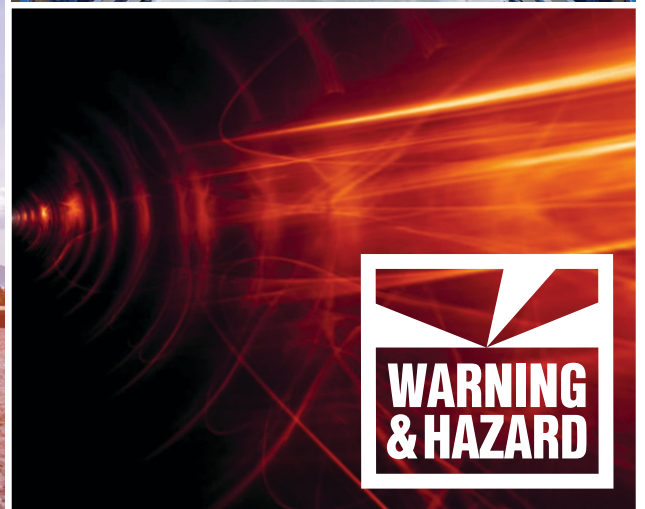


BE VISIBLE & BE SAFE

WARNING & HAZARD SOLUTIONS

AVERTISSEMENT ET DANGER ÉCLAIRAGE

ADVERTENCIA Y PELIGRO ILUMINACIÓN



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VISIBILITY & SAFETY MATTERS



CHOOSE THE RIGHT PRODUCT FOR YOUR SPECIFIC APPLICATION AND NEED.

YOUR SAFETY AND THE SAFETY OF OTHERS DEPENDS ON IT!

Not all warning lights are created equal.

Know the certification and regulations for your application and choose the products that will work as hard as you do! Safety first and foremost! Choose from a variety of mounting options, including Permanent mount, Magnet mount and Vacuum/Magnet mount solutions.

Select the proper mounting option for your specific needs and application.

Permanent-mount lighting should be used for vehicles that will be utilized in over-the-road applications. Magnet or Vacuum/Magnet mounted lighting options should only be used on vehicles that are not in motion, ie: stationary at a job site, off to the side of the road, etc.

You need to be seen while you are working and others need to see you — be visible at all times!

When it comes to audible warning devices, not all backup alarms are the same.

Choose the backup alarm that best suits the conditions that the alarm will be used in. Grote offers a wide variety of alarms, including heavy duty, medium duty and light duty options. Our alarms are available in a variety of audible tones, from standard beeping to the newest multi-frequency output. Adjustable volume levels allow for coverage in all conditions and applications.

Grote's versatile backup alarms are available in both surface mount and grommet mount options and are designed to reliably perform in a wide variety of difficult environments and harsh conditions.

Choose the right alarm that will best suit your unique environments.



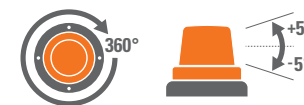
ELECTRO-MAGNETIC COMPLIANCE

No need to worry about Electro-Magnetic Compliance (EMC). Grote's new line of LED Lighting products have been put through rigorous Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) testing to help ensure our customers will have years of worry-free operation.

SAE STANDARDS/CERTIFICATIONS

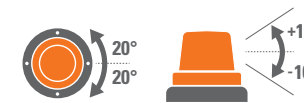
WHAT WE NEED TO KNOW AND WHY

There are two primary SAE Certifications to be aware of:



SAE J845 – Omnidirectional Optical Warning Device

A flashing optical warning device that projects light in a horizontal 360 degree arc and vertically from 5 degrees up to 5 degrees down. It will appear to project flashes of light to an observer positioned at a fixed location. The flashes of light may be a repetitive signal or a non-repetitive signal. If a non-repetitive signal is used, it shall be a block of repetitive signals that have been characterized. This includes all 360° beacons.



SAE J595 – Directional Flashing Optical Warning Device

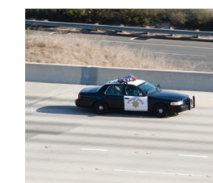
A flashing optical warning device, in which the light source produces flashes of light, which is directionally aimed and will project a signal over a minimum area from 20° right to 20° left in a horizontal plane and from 10° up to 10° down in a vertical plane. The flashes of light may be a repetitive signal or a non-repetitive signal. If a non-repetitive signal is used, it shall be a block of repetitive signals that have been characterized.

S-LINK™ TECHNOLOGY

S-Link™ System is a proprietary technology that allows similar S-Link products to be synchronized. This would allow for a user to define the flash patterns on multiple devices for a customized, tailored look on a vehicle. Note: Only S-Link compatible products can be synchronized together. Refer to user installation manuals for details on S-Link Synchronization.

CLASS I, II, III

WHICH IS TO BE USED AND WHERE?



Class I Optical Warning Devices

Engineered to capture the attention of motorists and pedestrians and warn of a potentially hazardous activity or situation, these optical warning devices can be used in many applications, including on authorized emergency vehicles traveling faster than the speed of traffic.



Typical Usage:

First Responders, Utility and Service, Snow Removal, Towing and Construction



Class II Optical Warning Devices

Engineered for use on authorized maintenance or service vehicles to warn of traffic hazards such as a lane blockage or a slow-moving vehicle, these devices are designed for visibility while traveling at the speed of traffic or while stopped on the side of the road.



Typical Usage:

Utility and Service, Roadside Assistance, Construction, Snow Removal and Agriculture



Class III Optical Warning Devices

Engineered for use on vehicles authorized to display an optical warning device for identification only, these devices are designed to provide extra visibility and safety to equipment and vehicles used on private property.

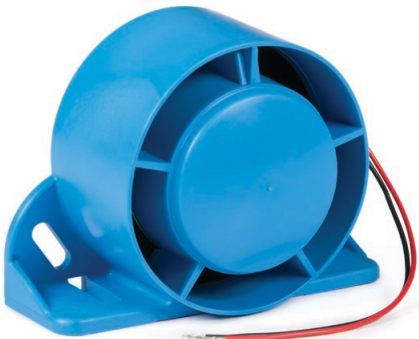
Typical Usage:

Forklifts, Property Maintenance and Construction

BACKUP ALARMS



73040



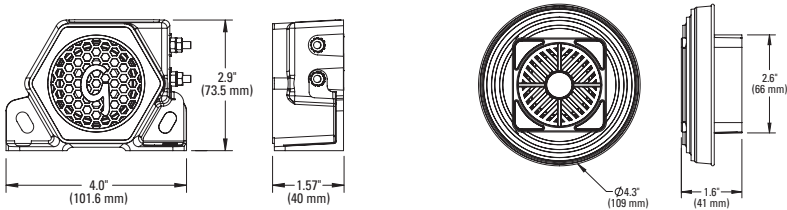
73080



FEATURES & BENEFITS

- Rugged construction with glass-filled nylon housings
- Universal mounting including grommet mounted products
- Available in a range of decibel output levels to fit wide variety of application needs
- Select the output volume based on the ambient noise levels of the environment where the alarms will be in use

Voltage: 12 to 24 VDC
Amp Draw: 0.1 amps – 0.5 amps @ 12 VDC



PART	DESCRIPTION	DECIBELS	VOLTAGE	APPROVALS
73040	Backup Alarm, Medium Duty	97 dB	12/24 V	SAE J994 Type C
73090	Backup Alarm, Medium Duty	107 dB	12/24 V	SAE J994 Type B
73110	Backup Alarm, Self Adjusting	82 dB to 102 dB	12/24 V	SAE J994 Type F
73250	Backup Alarm, Reverse Mounted Speaker	107 dB	12/24 V	SAE J994 Type B
73070	Backup Alarm, Reverse Mounted Speaker	112 dB	12/24 V	SAE J994 Type A
73240	Backup Alarm, Reverse Mounted Speaker, Self Adjusting	87 dB to 107 dB	12/24 V	SAE J994 Type F
73080	Backup Alarm, Reverse Mounted Speaker, Self Adjusting	87 dB to 112 dB	12/24 V	SAE J994 Type F
73030	Backup Alarm, Reverse Mounted Speaker, Selectable	107 dB or 112 dB	12/24 V	SAE J994 Type F
73310	Backup Alarm, Spectrum Multi Frequency, Reverse Mount	97 dB	12/24 V	SAE J994 Type C
73170	Backup Alarm, Spectrum Multi Frequency, Reverse Mount	107 dB	12/24 V	SAE J994 Type B
73220	Backup Alarm, 4" Grommet Mount	97 dB	12/24 V	SAE J994 Type C
73160	Backup Alarm, 4" Grommet Mount	107 dB	12/24 V	SAE J994 Type B
73350	Backup Alarm, Dual Function	97 dB	12/24 V	SAE J994 Type C*
73360	Dual-Tone Warning Alarm	97 dB	12/24 V	
73370	Dual-Tone Warning Alarm	102 dB	12/24 V	
73420	Dual-Tone Warning Alarm, 4" Grommet Mount	102 dB	12/24 V	

* Meets SAE J994 in Single Tone Mode (red wire to power, black wire to ground)

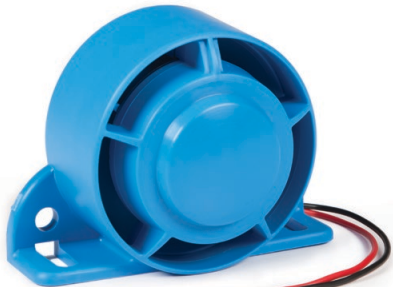
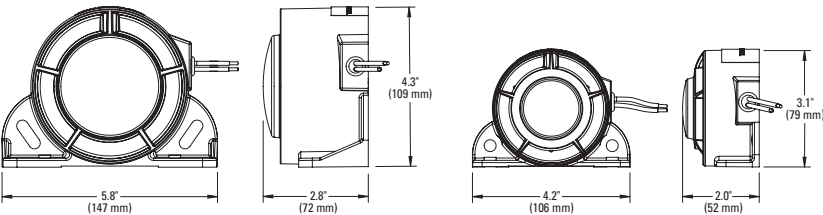
"WHITE NOISE" BACKUP ALARMS



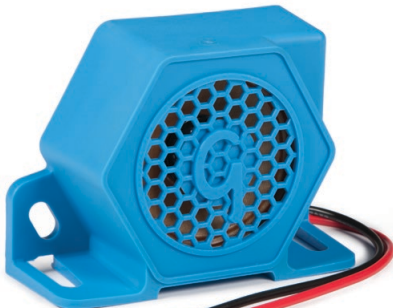
FEATURES & BENEFITS

- "White noise" function reduces noise pollution (ideal for use in residential areas)
- Rugged construction with glass-filled nylon housings
- Universal mounting including grommet mounted products
- Available in a range of decibel output levels to fit wide variety of application needs
- Select the output volume based on the ambient noise levels of the environment where the alarms will be in use

Voltage: 12 to 24 VDC
Amp Draw: 0.1 amps – 0.5 amps @ 12 VDC



73310



73340

PART	DESCRIPTION	DECIBELS	VOLTAGE	APPROVALS
73340	Backup Alarm, Multi Frequency, "White Noise", Standard Mount	97 dB	12/24 V	SAE J994 Type C
73320	Backup Alarm, Multi Frequency, "White Noise", Reverse Mount	102 dB	12/24 V	SAE J994 Type B
73430	Backup Alarm, Multi Frequency, Smart Alarm, "White Noise", Reverse Mount	87-107 dB	12/24 V	SAE J994 Type F
73440	Backup Alarm, Multi Frequency, Smart Alarm, "White Noise", Reverse Mount	77-97 dB	12/24 V	SAE J994 Type F
73480	Backup Alarm, Multi Frequency, "White Noise", Grommet Mount	97 dB	12/24 V	SAE J994 Type C
73490	Backup Alarm, Multi Frequency, "White Noise", Smart Alarm, Grommet Mount	97-107 dB	12/24 V	SAE J994 Type F

LED BEACON, CLASS I, TALL DOME

PERMANENT MOUNT



79073

FEATURES & BENEFITS

- 12 different selectable flash patterns in either of two phases, plus steady-on
- Durable polycarbonate inner lens and outer dome
- Clear, smooth outer dome for easy cleaning and inner lens protection
- Heavy-duty, spun aluminum base with plastic base insert
- Designed for a wide range of light-duty and heavy-duty vehicles
- S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
- High-Low power available on single color beacons
- Ability to isolate colors on dual-color models
- 5-year warranty

Voltage: 12 to 24 VDC

Amp Draw: 0.6 amps @ 12 VDC, 0.3 amps @ 24 VDC

APPROVALS: SAE J845 CLASS I AMBER WHITE SAE J845 CLASS II BLUE

NOT SAE APPROVED: GREEN AMBER GREEN



PART #	DESCRIPTION	COLOR
78010	LED Beacon, Class I, Tall Dome	Amber/Blue/Clear Dome
78013	LED Beacon, Class I, Tall Dome	Amber/Clear Dome
79071	LED Beacon, Class I, Tall Dome	White/Clear Dome
79073	LED Beacon, Class I, Tall Dome	Amber/Clear Dome
79075	LED Beacon, Class II, Tall Dome	Blue/Clear Dome
79074	LED Beacon, Tall Dome†	Green/Clear Dome
79070	LED Beacon, Tall Dome†	Amber/Green/Clear Dome
98251	Internal Replacement Lens	Clear
98253	Internal Replacement Lens	Amber
98255	Internal Replacement Lens	Blue
98271	Replacement Outer Dome	Clear

Rotating Flash Pattern † Not SAE approved



78015

78010



79074

PERMANENT MOUNT, VACUUM MAGNET MOUNT

LED BEACON, CLASS I

FEATURES & BENEFITS

- 12 different selectable flash patterns in either of two phases, plus steady-on
- Extremely low current draw. Circuit board is conformal coated to protect circuitry
- Durable polycarbonate twist-on/off lens
- S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
- Durable, lightweight polycarbonate base, flanged 3-hole permanent mount, 1" pipe mount, vacuum magnet mount with aux. plug (on/off and pattern select switch)
- 5-year warranty

PERMANENT MOUNT

Voltage: 12 to 24 VDC

Amp Draw: 0.5 amps @ 12 VDC

VACUUM MAGNET

Voltage: 12 VDC

Amp Draw: 0.5 amps @ 12 VDC

APPROVALS: SAE J845 CLASS I AMBER WHITE RED SAE J845 CLASS II BLUE

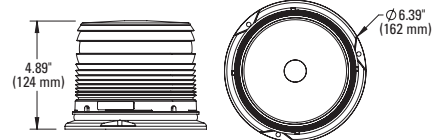


PART #	DESCRIPTION	MOUNT	COLOR
SHORT LENS			
78031	LED Beacon, Class I, Short Lens	Permanent	White
78041	LED Beacon, Class I, Short Lens	Vacuum Magnet	White
78033	LED Beacon, Class I, Short Lens	Permanent	Amber
78043	LED Beacon, Class I, Short Lens	Vacuum Magnet	Amber
78035	LED Beacon, Class II, Short Lens	Permanent	Blue
78045	LED Beacon, Class II, Short Lens	Vacuum Magnet	Blue
78030	LED Beacon, Class I, Short Lens	Permanent	Amber w/Clear Lens
78032	LED Beacon, Class I, Short Lens	Permanent	Red
78034	LED Beacon, Class I, Short Lens†	Permanent	Green
TALL LENS			
78051	LED Beacon, Class I, Tall Lens	Permanent	White
78053	LED Beacon, Class I, Tall Lens	Permanent	Amber
78055	LED Beacon, Class II, Tall Lens	Permanent	Blue
78050	LED Beacon, Class I, Tall Lens	Permanent	Amber w/Clear Lens
78052	LED Beacon, Class I, Tall Lens	Permanent	Red
78054	LED Beacon, Class I, Tall Lens†	Permanent	Green
SERVICE PARTS			
98221	Replacement Short Lens		Clear
98223	Replacement Short Lens		Amber
98225	Replacement Short Lens		Blue
98222	Replacement Short Lens		Red
98224	Replacement Short Lens		Green
98171	Replacement Tall Lens		Clear
98173	Replacement Tall Lens		Amber
98175	Replacement Tall Lens		Blue
98172	Replacement Tall Lens		Red
98174	Replacement Tall Lens		Green
98470	Branch Guard (Low Profile)		
98460	Branch Guard (High Profile)		

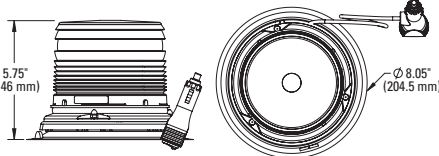
† Not SAE approved



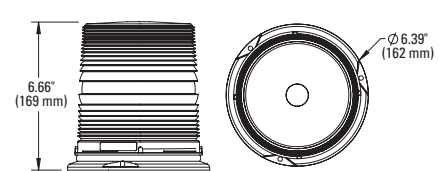
78033



78043

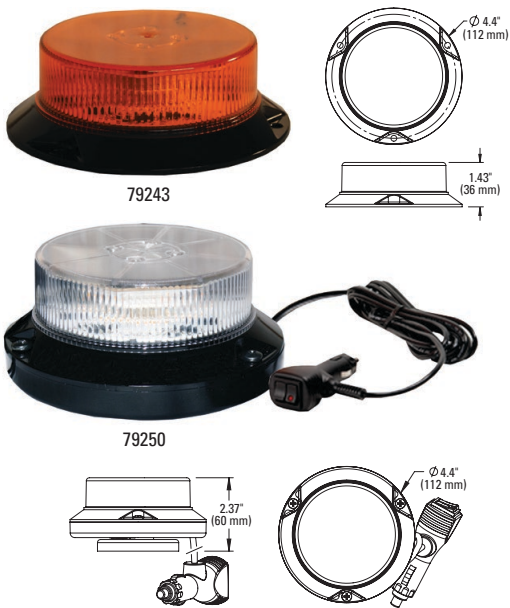


78053



LED MINI BEACON, CLASS I

PERMANENT MOUNT, MAGNET MOUNT



FEATURES & BENEFITS

- 12 customer selectable flash patterns in either of two phases, plus steady-on
- S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
- Polycarbonate lens and base (Ultrasonic welded); Polarity protected
- Three-hole, permanent mount and magnet mount with pattern select aux. plug

Voltage (Permanent Mount): 9 to 32 VDC | **Voltage (Magnet Mount):** 12 VDC
Amp Draw: 0.4 amps @ 12 VDC

APPROVALS: SAE J845 CLASS I

PART #	DESCRIPTION	MOUNT	COLOR
79243	LED Mini Beacon, Class I	Permanent	Amber w/Amber Lens
79240	LED Mini Beacon, Class I	Permanent	Amber w/Clear Lens
79241	LED Mini Beacon, Class I	Permanent	White w/Clear Lens
79253	LED Mini Beacon, Class I	Magnet	Amber w/Amber Lens
79250	LED Mini Beacon, Class I	Magnet	Amber w/Clear Lens
79251	LED Mini Beacon, Class I	Magnet	White w/Clear Lens
93605	Mounting Bracket for LED Mini Beacon		

LED BEACON, CLASS II, SHORT LENS

PERMANENT MOUNT, VACUUM MAGNET MOUNT



FEATURES & BENEFITS

- 26 selectable flash patterns, plus steady-on
- Circuit board is conformal coated to protect circuitry
- Durable, lightweight polycarbonate base, comes in three mounting options: flanged 3-hole permanent mount, 1" pipe mount, vacuum magnet mount with aux. plug (on/off and pattern select switch)
- 5-year warranty

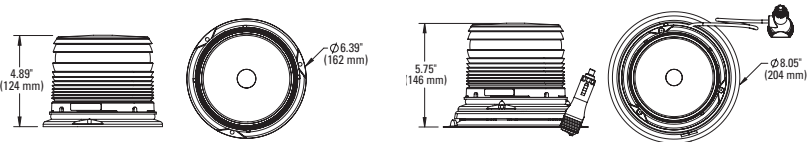
PERMANENT MOUNT

Voltage: 12 to 24 VDC
Amp Draw: 0.4 amps – 0.35 amps @ 12 VDC

VACUUM MAGNET

Voltage: 12 VDC
Amp Draw: 0.4 amps – 0.35 amps @ 12 VDC

APPROVALS: SAE J845 CLASS II AMBER WHITE SAE J845 CLASS III BLUE



PART #	DESCRIPTION	MOUNT	COLOR
78851	LED Beacon, Class II	Permanent	White
78853	LED Beacon, Class II	Permanent	Amber
78855	LED Beacon, Class III	Permanent	Blue
78861	LED Beacon, Class II	Vacuum Magnet	White
78863	LED Beacon, Class II	Vacuum Magnet	Amber
78865	LED Beacon, Class III	Vacuum Magnet	Blue
SERVICE PARTS			
98221	Replacement Short Lens		Clear
98223	Replacement Short Lens		Amber
98225	Replacement Short Lens		Blue
98470	Branch Guard (Low Profile)		

PERMANENT MOUNT

LED BEACON, CLASS II, TALL LENS

FEATURES & BENEFITS

- 26 selectable flash patterns, including steady-on
- Circuit board is conformal coated to protect circuitry
- Universal flanged base is made of durable, lightweight polycarbonate
- Available in 3-hole permanent mount and 1" pipe mount options
- 5-year warranty

Voltage: 12 to 24 VDC

Amp Draw: 0.4 amps – 0.35 amps @ 12 VDC

APPROVALS: SAE J845 CLASS II AMBER WHITE BLUE



PART #	DESCRIPTION	COLOR
78061	LED Beacon, Class II, Tall Lens	White
78063	LED Beacon, Class II, Tall Lens	Amber
78065	LED Beacon, Class II, Tall Lens	Blue
SERVICE PARTS		
98171	Replacement Tall Lens	Clear
98173	Replacement Tall Lens	Amber
98175	Replacement Tall Lens	Blue
98460	Branch Guard (High Profile)	

PERMANENT MOUNT, MAGNET MOUNT

LED COMPACT BEACON

FEATURES & BENEFITS

- 79093: 12 different selectable flash patterns, plus steady-on
- 79183 & 79193: 26 different selectable flash patterns, including steady-on
- Compact design with super bright LED light output that conforms to SAE J845
- Durable, lightweight polycarbonate construction featuring either a permanent mount base with 1/2" pipe mount or a magnet mount with auxiliary plug
- Auxiliary plug (with on/off and pattern select switch)
- Ideal for mirror-mount applications or where low-profile lamps are beneficial

79093/79183 Voltage: 12 to 24 VDC

79093/79183 Amp Draw: 0.4 amps @ 12 VDC

79193 Voltage: 12 VDC

79193 Amp Draw: 0.4 amps @ 12 VDC

APPROVALS: SAE J845 CLASS I, SAE J845 CLASS II

PART #	DESCRIPTION	MOUNT	COLOR
79093	LED Compact Beacon, Class I	Permanent	Amber
79183	LED Compact Beacon, Class II	Permanent	Amber
79193	LED Compact Beacon, Class II	Magnet	Amber
ACCESSORIES			
98513	7909 Amber Replacement Lens		Amber
93604	1/2" Mirror Mounting Bracket		
93604-KIT	1/2" Mirror Mounting Bracket, Wiring & Connectors		



LED BEACON, CLASS I



78071



78081

DUAL COLOR, PERMANENT MOUNT

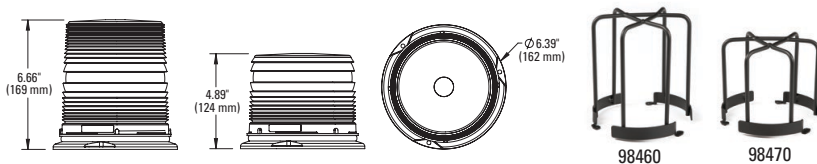
FEATURES & BENEFITS

- 12 selectable flash patterns, including steady-on
- S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
- Change color selection with the flip of a switch
- Available in 3-hole permanent mount and 1" pipe mount options
- Circuit boards are conformal coated to protect circuitry
- 5-year warranty

Voltage: 12 to 24 VDC

Amp Draw: 0.6 amps @ 12 VDC, 0.3 amps @ 24 VDC

APPROVALS: SAE J845 CLASS I



PART #	DESCRIPTION	COLOR
78071	LED Beacon, Class I, Short Lens	Amber/White w/Clear Lens
78075	LED Beacon, Class I, Short Lens	Amber/Blue w/Clear Lens
78070	LED Beacon, Short Lens†	Amber/Green w/Clear Lens
98470	Branch Guard (Low Profile)	
78081	LED Beacon, Class I, Tall Lens	Amber/White w/Clear Lens
78085	LED Beacon, Class I, Tall Lens	Amber/Blue w/Clear Lens
78080	LED Beacon, Tall Lens†	Amber/Green w/Clear Lens
98460	Branch Guard (High Profile)	
SERVICE PARTS		
98171	Replacement Tall Lens	Clear
98221	Replacement Short Lens	Clear

† Not SAE approved

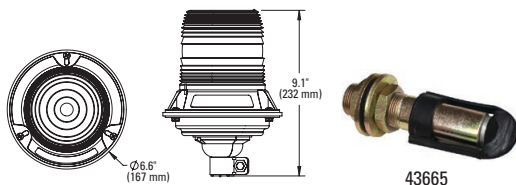
DIN MOUNT LED BEACON



78123

78125

78122



43665

FEATURES & BENEFITS

- Quad flash pattern
- Modular circuit completely encapsulated for increased shock/weather resistance
- Lightweight and durable polycarbonate base with flexible DIN mount
- 5-year Warranty

Voltage: 12 to 24 VDC

Amp Draw: 0.4 amps @ 12 VDC

APPROVALS: SAE J845 CLASS II AMBER BLUE SAE J845 CLASS III RED

PART #	DESCRIPTION	COLOR
78122	LED Beacon, Class III, DIN Mount	Red
78123	LED Beacon, Class II, DIN Mount	Amber
78125	LED Beacon, Class II, DIN Mount	Blue
SERVICE PARTS		
43665	Mounting Stem	

LED MATERIAL HANDLING BEACONS

FEATURES & BENEFITS

- 28 selectable flash patterns, plus 2 steady-on
- 78113: selectable Single, Double or Quad flash patterns
- Circuit board is conformal coated to protect circuitry
- Twist-off lens for ease of replacement
- Lightweight, durable polycarbonate base
- Flanged 3-hole permanent mount on 78093
- Flanged 2-hole permanent mount on 78113
- Magnet mount with aux. plug on 78103
- 5-year Warranty: 78093 & 78103, 1-year Warranty: 78113

SHORT LENS

Voltage: 12 to 72 VDC

Amp Draw:

.17 amps @ 12 VDC

SHORT LENS, MAGNET MOUNT

Voltage: 12 VDC

Amp Draw:

.22 amps @ 12 VDC

TALL LENS

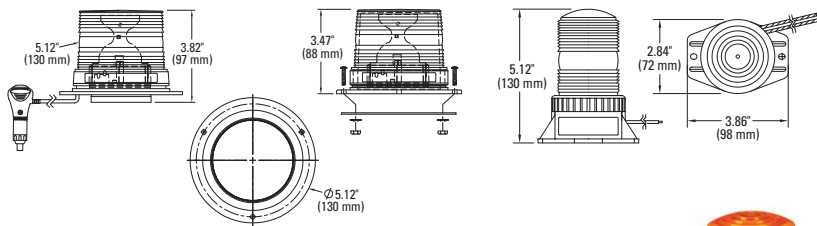
12 to 72 VDC

Amp Draw:

1.2 amps @12 VDC

APPROVALS: SAE J845 CLASS II 78093, 78103

SAE J845 CLASS III 78113 BLUE WHITE RED NOT SAE APPROVED: GREEN



PART #	DESCRIPTION	MOUNT	COLOR
78093	LED Material Handling, Class II, Short Lens	Permanent	Amber
78103	LED Material Handling, Class II, Short Lens	Magnet	Amber
78113	LED Material Handling, Class III, Tall Lens	Permanent	Amber
78091	LED Material Handling, Class III, Short Lens	Permanent	White
78092	LED Material Handling, Class III, Short Lens	Permanent	Red
78094	LED Material Handling, Short Lens†	Permanent	Green
78095	LED Material Handling, Class III, Short Lens	Permanent	Blue
78101	LED Material Handling, Class III, Short Lens	Magnet	White
78102	LED Material Handling, Class III, Short Lens	Magnet	Red
78104	LED Material Handling, Short Lens†	Magnet	Green
78105	LED Material Handling, Class III, Short Lens	Magnet	Blue
SERVICE PARTS			
98283	7809 Replacement Lens – 3" Height		Amber
98293	7809 Replacement Lens – 3.9" Height		Amber
98281	7809-7810 Replacement Lens – 3" Height		Clear
98282	7809-7810 Replacement Lens – 3" Height		Red
98284	7809-7810 Replacement Lens – 3" Height		Green
98285	7809-7810 Replacement Lens – 3" Height		Blue

† Not SAE approved



78093



78103



78113

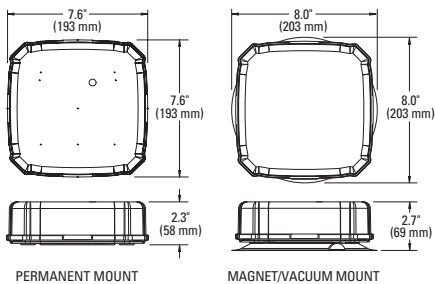
SQUARE LED MINIBAR, CLASS I



79220



79233



FEATURES & BENEFITS

- With four bright LED heads producing 360° output, this powerful unit is also the smallest Minibar Grote offers
- 12 customer selectable flash patterns plus steady-on, and the permanent mount version offers two phases of output, high or low
- S-Link™ 2.0 System offers synchronizing capabilities with other Grote LED S-Link units
- Available in permanent mount option and a vacuum/magnet mount with pattern select switch and 11' power cord
- All models are rated to SAE Class I to provide optimum safety for your vehicles and equipment
- Base material: 33% Glass Filled Nylon, Lens Material: Polycarbonate
- 5-year Warranty

Voltage: 12 VDC
Amp Draw: 1.2 amps

APPROVALS: SAE J845 CLASS I

PART #	DESCRIPTION	MOUNT	COLOR
PERMANENT MOUNT			
79220	Square LED Minibar	Permanent	Amber w/Clear Lens
79221	Square LED Minibar	Permanent	White w/Clear Lens
79223	Square LED Minibar	Permanent	Amber w/Amber Lens
VACUUM MOUNT			
79230	Square LED Minibar	Vacuum/Magnet	Amber w/Clear Lens
79231	Square LED Minibar	Vacuum/Magnet	White w/Clear Lens
79233	Square LED Minibar	Vacuum/Magnet	Amber w/Amber Lens

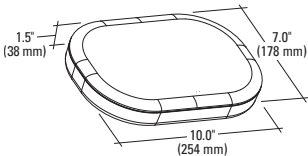
COMPACT LED LIGHT BAR, CLASS I



77803



77223



FEATURES & BENEFITS

- 22 selectable flash patterns via external pattern-select wire on permanent models
- Ultra-low profile reduces drag and friction
- Magnet mount products come complete with an auxiliary plug for on/off function and 22 selectable flash patterns
- For use in various applications, such as pick-up trucks, cars or heavy-duty vehicles

Voltage: 12 to 24 VDC
Amp Draw: 2.5 amps @ 12 VDC, 1.25 amps @ 24 VDC

APPROVALS: SAE J845 CLASS I

PART #	DESCRIPTION	MOUNT	COLOR
77223	Class I Compact LED Light Bar	Permanent	Amber w/Clear Lens
77803	Class I Compact LED Light Bar	Magnet	Amber w/Clear Lens

LED MINI LIGHT BAR, CLASS I

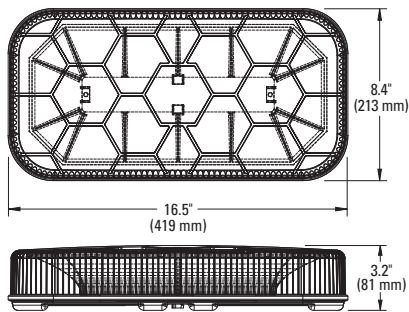
FEATURES & BENEFITS

- Permanent-mount models – 20 selectable flash patterns via external pattern-select wire
- Low profile reduces drag and friction
- S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
- Magnet and vacuum mounted products come complete with an auxiliary plug for on/off function and 20 selectable flash patterns
- 5-year Warranty

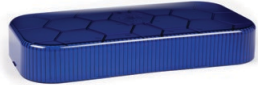
PERMANENT MOUNT
Voltage: 12 to 24 VDC
Amp Draw: 2.3 amps max

VACUUM MAGNET
Voltage: 12 VDC
Amp Draw: 2.3 amps max

APPROVALS: SAE J845 CLASS I



98311



98315



98313

PART #	DESCRIPTION	MOUNT	COLOR
78020	LED Mini Light Bar	Permanent	Split Amber/Blue
78021	LED Mini Light Bar	Permanent	Full Amber/Full White
78023	LED Mini Light Bar	Permanent	Amber
78025	LED Mini Light Bar	Permanent	Blue
78130	LED Mini Light Bar	Vacuum Magnet	Split Amber/Blue
78133	LED Mini Light Bar	Vacuum Magnet	Amber
78135	LED Mini Light Bar	Vacuum Magnet	Blue
78443	LED Mini Light Bar	Magnet	Amber
78024	LED Mini Light Bar†	Permanent	Green
79053	LED Mini Light Bar	Permanent	Amber w/Clear Lens
78020-DC	LED Mini Light Bar	Permanent	Full Amber/Full Blue
SERVICE PARTS			
98311	Replacement Lens		Clear
98313	Replacement Lens		Amber
98315	Replacement Lens		Blue
98314	Replacement Lens		Green
42390	Ford F-Series Mounting Bracket for trucks with Halogen Brake Lamps		
42391	Ford F-Series Mounting Bracket for trucks with LED Brake Lamps		
42392	Steel Mounting Plate for Magnet Mounted Lamps		

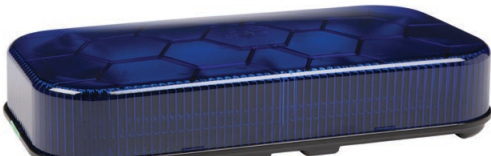
Rotating Flash Pattern † Not SAE approved



78023



78020



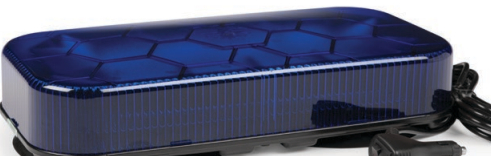
78025



78133



78130

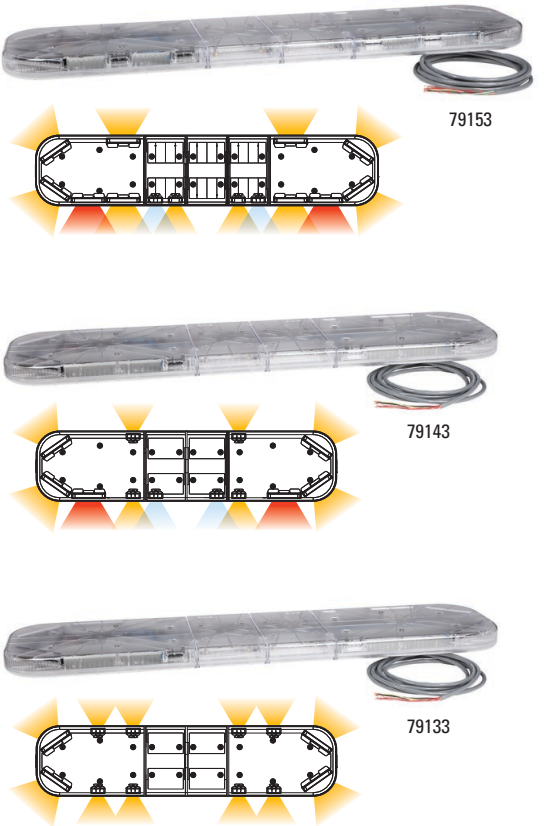


78135



42392

LED AMBER TOW BARS, CLASS I



FEATURES & BENEFITS

- Built in stop/tail/turn functionality with rear-facing work lights (select models)
- Ability to isolate extra bright front and rear amber LED modules with separate enable wires
- 12 customer selectable flash patterns
- Low profile design at 2 1/2" high
- Includes simple bracket for permanent mounting or optional gutter kits are available for various makes and models of vehicles
- Materials: aluminum base, polycarbonate lens

Voltage: 12 VDC

Amp Draw: 6.2 amps

APPROVALS: SAE J845 CLASS I

98542	98532	42410
PART #	DESCRIPTION	COLOR
79153	58" Amber Towbar with S/T/T and Worklights	●●○ Amber/Red/White
79143	51" Amber Towbar with S/T/T and Worklights	●●○ Amber/Red/White
79133	51" Amber Towbar	● Amber
SERVICE PARTS		
98542	Tow Bar Bracket for Spotlight	
98532	Optional Roof Mount Bracket	
42400	4.6" Flex Gutter Kit	
42410	6.2" Flex Gutter Kit	
42420	8.4" Flex Gutter Kit	

AUXILIARY STROBE & STOP LAMPS, CLASS II



FEATURES & BENEFITS

- Available in two mounting styles to fit a wide array of vehicles
- Several wiring options to fit all harness systems
- Five amber flashes in four seconds, followed by a solid red burn
- Studies show that flashing brake lights can reduce rear-end accidents by more than 33%

Voltage: 12 VDC

78462 Amp Draw: 0.4 amps 79212 Amp Draw: 0.125 amps @ 12.8 VDC

APPROVALS: SAE J845 CLASS II

PART #	DESCRIPTION	COLOR
SURFACE MOUNT		
78462	Compact Aux Strobe & Stop Lamp	●● Amber/Red
78462-3	Compact Aux Strobe & Stop Lamp (Bulk)	●● Amber/Red
BRACKET/GROMMET MOUNT		
79212	6" Oval Aux Strobe & Stop Lamp	●● Amber/Red
79212-3	6" Oval Aux Strobe & Stop Lamp (Bulk)	●● Amber/Red

SURFACE MOUNT

LED DIRECTIONAL LIGHT

FEATURES & BENEFITS

- Ultra-low profile; Single and split-color models
- 12 different selectable flash patterns in either of two phases, plus steady-on
- Robust design, die-cast aluminum base, optional chrome or white bezels available
- Standard four wire hook-up, endless mounting possibilities
- S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
- 5-year Warranty

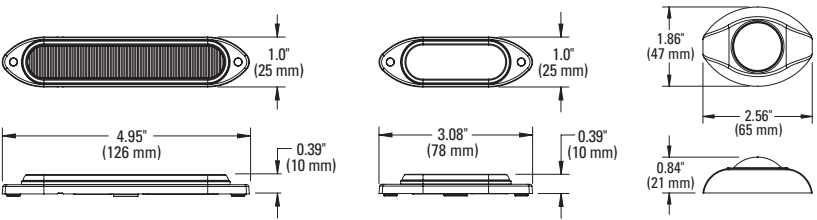
VOLTAGE/AMP DRAW

Tri-Color LED: 0.8 amps @ 12 V 6 Diode LED: 0.55 amps @ 12 V 3 Diode LED: 0.3 amps @ 12 V

APPROVALS: SAE J595 CLASS I ● AMBER ● BLUE ○ WHITE ● RED
●●○ AMBER/RED/WHITE ●●○ AMBER/GREEN/WHITE ●●○ AMBER/BLUE/WHITE

APPROVALS: SAE J595 CLASS II ●● AMBER/BLUE ●○ AMBER/WHITE ●○ RED/WHITE

NOT SAE APPROVED: ● GREEN ● AMBER GREEN



PART #	DESCRIPTION	VOLTAGE	CLASS	COLOR
FULL TRI-COLOR LED				
79120	8 Diode LED Full Tri-Color Directional Warning Light	14 to 24 VDC	Class I	●●○ Full Amber/Full Red/Full White
79110	7 Diode LED Full Tri-Color Directional Warning Light	13 to 24 VDC	Class I	●●○ Full Amber/Full Green/Full White
79100	6 Diode LED Full Tri-Color Directional Warning Light	12 to 24 VDC	Class I	●●○ Full Amber/Full Blue/Full White
SPLIT DUAL COLOR LED				
78140	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	—	●● Split Amber/Green
78146	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class II	●● Split Amber/Blue
78460	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class II	●○ Split Amber/White
79080	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class II	●○ Split Red/White
SINGLE COLOR LED				
78141	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class I	○ White
78142	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class I	● Red
78143	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class I	● Amber
78144	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	—	● Green
78145	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class I	● Blue
79033	6 Diode LED Directional Light, Surface Mount	12 to 24 VDC	Class I	● Amber
78161	3 Diode LED Directional Light, Surface Mount	12 VDC	Class I	○ White
78162	3 Diode LED Directional Light, Surface Mount	12 VDC	Class I	● Red
78163	3 Diode LED Directional Light, Surface Mount	12 VDC	Class I	● Amber
78164	3 Diode LED Directional Light, Surface Mount	12 VDC	—	● Green
78165	3 Diode LED Directional Light, Surface Mount	12 VDC	Class I	● Blue
SERVICE PARTS				
98350	License Plate Bracket	—		● Black
98360	L Bracket	—		● Black
98390	Chrome Bezel for 7814x Models	—		○ Chrome
98400	White Bezel for 7814x Models	—		○ White

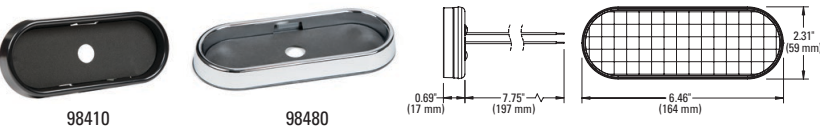
LED WARNING LIGHTS, CLASS I

SURFACE & GROMMET MOUNT



- FEATURES & BENEFITS**
- 12 different selectable flash patterns in either of two phases, plus steady-on
 - Only .69" thick
 - S-Link™ System allows for flash pattern synchronization with up to six other S-Link compatible units (for hardwire models only)
 - Grommet mount can be converted to surface mount with optional chrome or black bezels
 - 5-year Warranty

Voltage: 12 to 24 VDC
Amp Draw: 0.3 amps @ 12 VDC, 0.2 amps @ 24 VDC
APPROVALS: SAE J595 CLASS I AMBER BLUE WHITE AMBER/BLUE



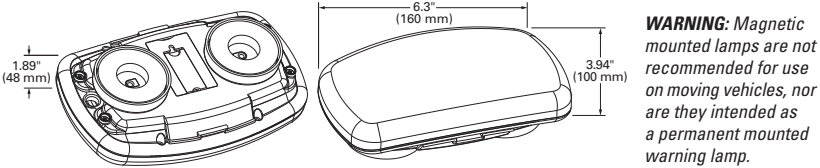
PART #	DESCRIPTION	VOLTAGE	COLOR
LED 6" OVAL			
78190	LED 6" Oval Warning Light, Grommet Mount	12 to 24 VDC	Amber/Blue
78191	LED 6" Oval Warning Light, Grommet Mount	12 to 24 VDC	White
78193	LED 6" Oval Warning Light, Grommet Mount	12 to 24 VDC	Amber
78194	LED 6" Oval Warning Light, Grommet Mount	12 to 24 VDC	Green w/Clear Lens
78195	LED 6" Oval Warning Light, Grommet Mount	12 to 24 VDC	Blue w/Clear lens
SERVICE PARTS			
98410	6" Oval Black Surface Mount Bezel		
98480	6" Oval Chrome Surface Mount Bezel		

BATTERY-OPERATED LED WARNING LAMPS

MAGNET MOUNT



- FEATURES & BENEFITS**
- Mag mount attaches securely to back of vehicle or optional galvanized bracket
 - Flashing or steady-on operation
 - Requires 4 x AA batteries (*not included*)
 - Features two heavy-duty magnets



WARNING: Magnetic mounted lamps are not recommended for use on moving vehicles, nor are they intended as a permanent mounted warning lamp.

PART #	DESCRIPTION	COLOR
79202-5	LED Magnetic Warning Lamp	Red
79203-5	LED Magnetic Warning Lamp	Amber
ACCESSORY		
42380	Galvanized Bracket	

HEATED LED SNOW PLOW LAMPS

- FEATURES & BENEFITS**
- Integrated sensor detects ambient temperature and activates heating element to melt snow and prevent ice buildup
 - Heavy-duty construction ideal for the harshest environments
 - Housing: Die-cast aluminum; Lens: Glass
 - Mounting: Single Post Swivel Mount
 - 6G Vibration – 8 hours; Reverse voltage protection
 - Pigtail: Integrated 6-pin DT connector with blunt-cut adapter (included)
 - Regulations/Standards: FMVSS 571.108; DOT; SAE UB3; LB: SAE LB3V, SAE J577, IP67
 - 2-year warranty

PART #	DESCRIPTION
84661-4	LED Heated Snow Plow Lamps, Automatic Melt, Pair Pack
SERVICE PARTS	
84631-5	LED Heated Snow Plow Lamps, Automatic Melt, Driver/Left only
84641-5	LED Heated Snow Plow Lamps, Automatic Melt, Passenger/Right only



HEATED LED HEADLAMPS

- FEATURES & BENEFITS**
- Heated lens is designed to melt snow and ice in minutes
 - Improves the driving experience by providing better detail and reducing eye fatigue, decreasing the chance for accidents
 - Long-lasting LEDs outperform OEM halogen and incandescent bulbs in longevity, light output, and pattern
 - 64H81-5, 64H71-5: heated function activates automatically to melt snow and ice
 - 64H81-5, 64H71-5: designed for a standard H4 connection, no additional wiring needed for vehicles featuring standard H4 wiring
 - 64H81-5, 64H71-5: utilizes industry-standard H4 plug
 - 2-year warranty

Voltage: 12 to 30 VDC

64H81-5: Low Beam: Heat On: 3.2 amps at 12 V, 39 W, Heat Off: 0.92 amps at 12 V, 11 W
High Beam: Heat On: 4.5 amps at 12 V, 54 W, Heat Off: 2.7 amps at 12 V, 32 W, Parking: 0.09 at 12 V, 3 W

64H71-5: Low Beam: Heat On: 3.0 amps at 12 V, 36 W, Heat Off: 0.94 amps at 12 V, 11 W
High Beam: Heat On: 4.5 amps at 12 V, 54 W, Heat Off: 2.7 amps at 12 V, 32 W Parking: 0.09 at 12 V, 3 W

64J61-5, 64J71-5: Low Beam: Heat On: 3.2 amps at 12 V, 38 W, Heat Off: 0.75 amps at 12 V, 9 W
High Beam: Heat On: 3.9 amps at 12 V, 47 W, Heat Off: 1.4 amps at 12 V, 17 W

PART #	DESCRIPTION
64H81-5	Heated 5"x7" LED "Sealed Beam" Headlight
64H71-5	Heated 7" LED "Sealed Beam" Headlight
64J71-5	Heated 4"x6" LED Headlamp, Low Beam
64J61-5	Heated 4"x6" LED Headlamp, High Beam



LED TRAFFIC DIRECTORS, CLASS I



FEATURES & BENEFITS

- 34 selectable warning flash patterns, plus five phase options
- Made from durable extruded aluminum — will not warp or bend
- Front load for easy replacement of individual heads
- 20" model comes with a 2' three-wire cable (power, ground, pattern select)
- 30" & 40" models come with a 25' six-wire cable, (power, ground, program wire, left enable, right enable, warn enable, center-out = L + R)
- Ideal for front push bumpers, pickup trucks, headache rack, running board lights
- Weatherproof interior or exterior mount
- 5-year warranty

Voltage: 12 VDC

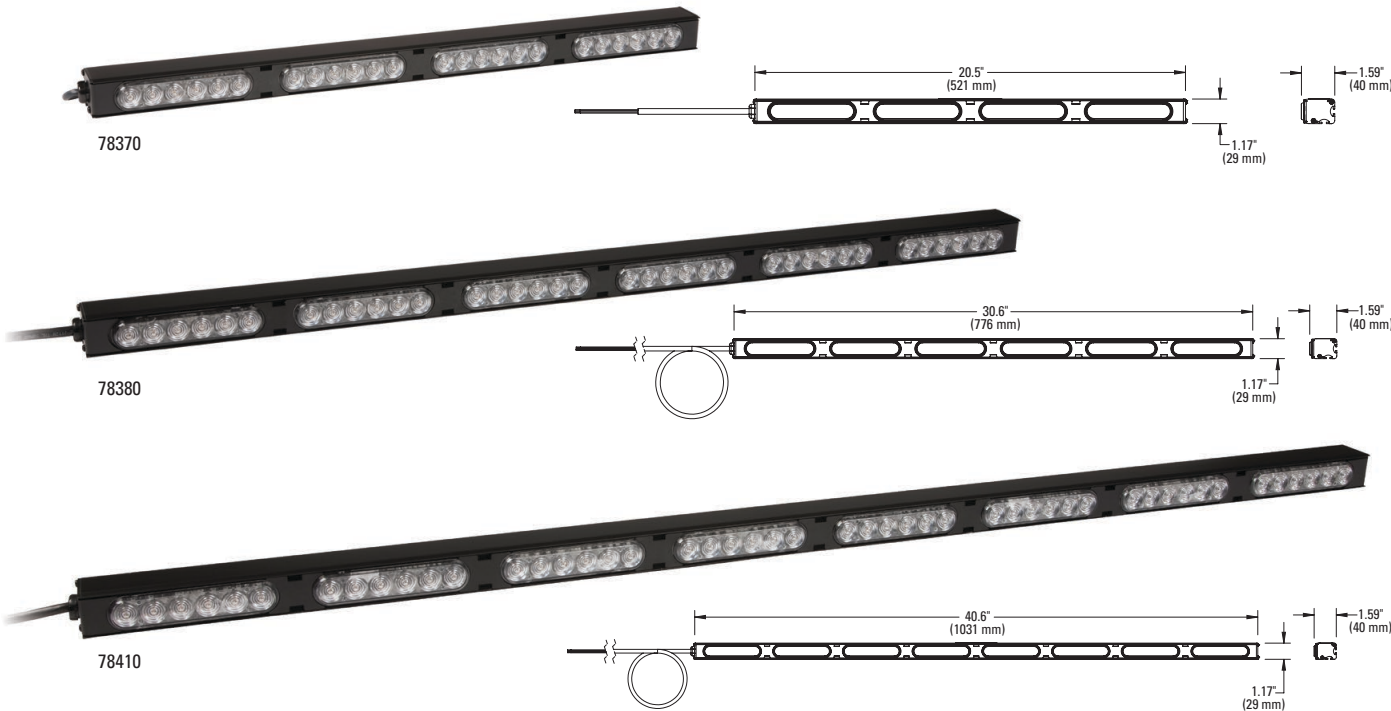
Amp draw: 2 amps average (4 head), 3 amps average (6 head), 4 amps average (8 head) @ 12 V

APPROVALS: SAE J575 CLASS I

PART #	DESCRIPTION	COLOR
78370	20" LED 4 Module Warning Stick	Amber
78380	30" LED 6 Module Traffic Director	Amber
78410	40" LED 8 Module Traffic Director	Amber
SERVICE PARTS		
98343	Replacement Module	Amber
98345	Replacement Module	Blue
98341	Replacement Module	White
98342	Replacement Module	Red
98344	Replacement Module	Green
98524	Advanced Programmable Controller, 8-Button	



98524 (not included)



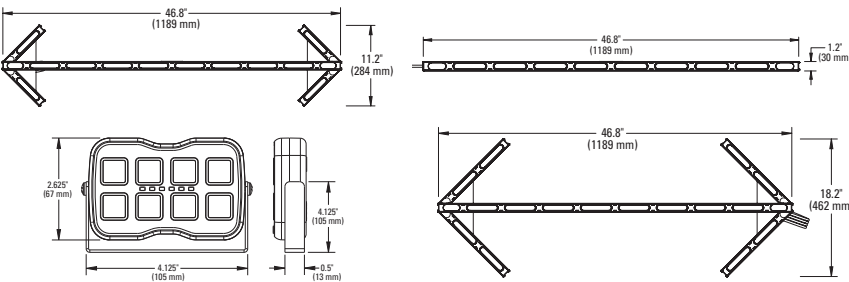
LED TRAFFIC DIRECTORS/ARROWS



FEATURES & BENEFITS

- Made from durable extruded aluminum — Traffic Directors will not warp or bend
- Micro-processor control unit offers four modes with distinctive flash options
- Front load for easy replacement of individual heads
- Modes: left arrow, right arrow, center out, and warn (alternating)
- Ships complete with back-lit control unit, attached quick-disconnect wire harness (15' standard), L-brackets, hardware, and instructions
- Controllers: 14 brightness settings
- 98524: Can be programmed as a traffic director controller, or up to 8 separate warning/lighting devices
- 95823: Traffic director controller, with ability to be programmed to control up to 4 warning/lighting devices
- 5-year warranty

Voltage: 12 VDC 78200 Amp Draw: 2.4 amps @ 12.8 VDC, 78210 Amp Draw: 3.6 amps @ 12.8 VDC 78270 Amp Draw: 4.8 amps @ 12.8 VDC 98524, 98523 Operating Range: 9-16 VDC 98524 Amp Draw: 6 outputs at 2.5 amps avg. (5 amp peak), 2 outputs at 0.06 amps avg. 98523 Amp Draw: 2 outputs at 2.5 amps avg. (5 amp peak), 2 outputs at 0.06 amps avg.



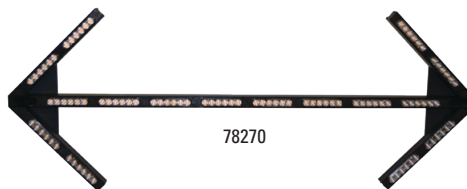
PART #	DESCRIPTION
78200	LED Traffic Director
78210	Small LED Traffic Director with Arrow
78270	Large LED Traffic Director with Dual Lamp Arrow
98524	Advanced programmable controller, 8 button, operate up to 8 lights/devices
98523	Programmable controller, 5 button, operate up to 4 lights/devices
SERVICE PARTS	
98343	Replacement Module for Traffic Director (78200, 78210, 78270)



78200



78210



78270



98524



98523

GROTE S-LINK™ SYSTEM



**S-LINK™
CAPABLE**

S-Link System is a proprietary technology that will allow similar S-Link products to be synchronized. This would allow for a user to define the flash patterns on multiple devices for a customized, tailored look on a vehicle.

Only S-Link compatible products can be synchronized together. “S-Link” allows you sync up to 6 products. “S-Link 2.0” allows you sync up to 10 products. If all of your products have “S-link 2.0”; that system will also have “hot swapping” capability, meaning any product replaced or added to the system will automatically sync without reprogramming. Refer to user installation manuals for details on S-Link System synchronization.

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Grote's Warning & Hazard products feature refreshed and retail-friendly full-color boxes. This “best-in-class” retail packaging informs your customers of all the critical safety features and key product benefits, to help them make a correct purchase decision for their application. Our consistent carton sizes, with large images, make them easy to display and organize on your shelves.

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WE KNOW THE POWER OF A GOOD CONNECTION

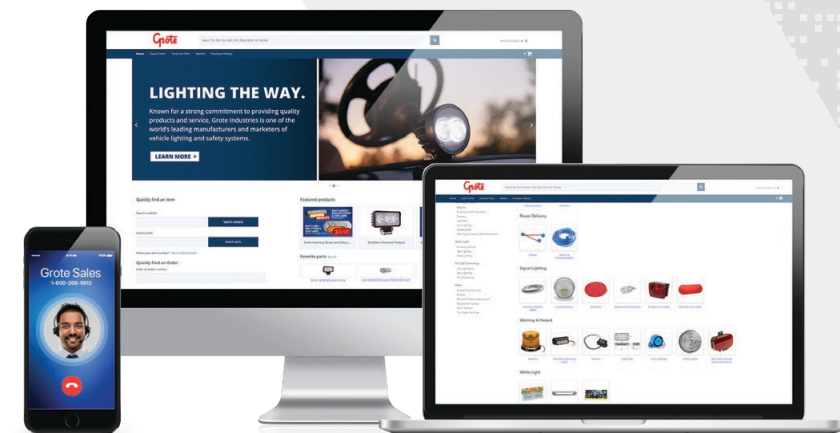


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