



BACK-UP ALARMS & WARNING LIGHTS



2008



For more than 40 years, Preco back-up alarms have been the warning solution of choice for many of the world's leading OEMs and most prominent aftermarket distributors. During this time, the Preco brand has become synonymous with world-class design, innovation and manufacture of vehicle warning products.

In this catalog you will find the entire line of back-up alarms and warning lights offered by Preco Safety Products under the BAC-A-LARM™ and Premier™ brand names.



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'e' = EMC (Electro-Magnetic Compatible) in Europe for Autos
 CE = EMC (Electro-Magnetic Compatible) in Europe
 UL = Underwriters Laboratories Inc. —Application Dependent
 SAE = Society of Automotive Engineers
 'E' = European Regulation 65 (ECE 65); Color and Photometry in Europe

WARNING LIGHTS

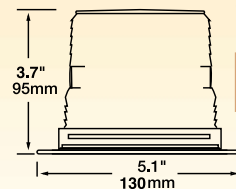
7300 SERIES LED BEACON

Model	Mount	Height	Diameter/ Width	Flashes Per Minute	Voltage
7312	Flange	3.7" (95mm)	5.1" (130mm)	66(8x)	12-80 VDC
7313	Flange	3.7" (95mm)	5.1" (130mm)	Steady Burn	12-80 VDC

NEW!



Precor introduces this small LED strobe to offer the full advantages of LED reliability at a price that is competitive with existing non-LED strobes. Precor's design offers the exceptional warning ability of beacons with the low amp draw and extended life of LEDs. All of this is packaged in an industry standard size. The flash pattern consists of 8 short pulses to create a single flickering flash at a 66 flash per minute rate. The 7300 Series has an enhanced thermo-dynamic design as well as an encapsulated circuit board, to keep the LEDs at a controlled temperature which ensures consistent intensity to meet SAE requirements no matter how long the 7300 Series runs. 5 Year Warranty.



Optional:
Magnetic Mount Kit MK3318



7312	0.18-0.5 Amps	SAE Class 3
7313	0.18-0.5 Amps	

'e'CE

Available configurations

	7312	7313
X -LED Color: A =Amber, B =Blue, W =White, G =Green, R =Red	7312 X	7313 X
Magnetic Mount	7312 X MK	7313 X MK

*All lenses are clear

7400 SERIES LED BEACON

Model	Mount	Height	Diameter/ Width	Flashes Per Minute	Voltage
7412	Flange	5.2" (132mm)	3.9" (98mm)	75(quad)	12-80 VDC

Precor's maintenance free 7400 Series LED Beacons feature one of the latest 3 watt side emitting LED and quad flash operation, producing a warning signal ideally suited to industrial applications. This cost effective unit has a wide operating range of 12-80v making it the perfect light for use in electric vehicles. The long, trouble free service life and low amp draw characteristics of LED technology make this an ideal replacement solution for rotating or strobe beacons. 5 Year Warranty.

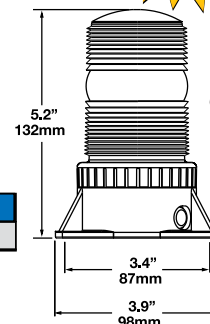
Available configurations

	7412
X = Lens Color: A =Amber, B =Blue, C =Clear, G =Green, R =Red	7412 X

Parts & Accessories

Lenses	Amber	LA3951	Blue	LB3951	Clear	LC3951	Green	LG3951	Red	LR3951
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NEW!

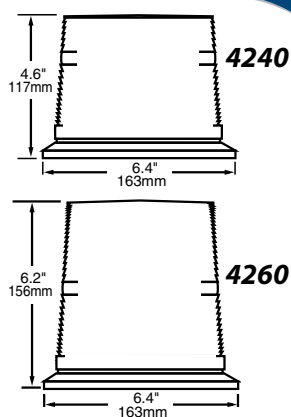


7412

0.3 Amps
SAE Class 3
(amber only)

'e'CE

4200 SERIES



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage	SAE Class
12	4241	4.6" (117mm)	Double	80	12-24 VDC	2
18/8	4242	4.6" (117mm)	Double/Quad	65	12-48 VDC	1*
12	4261	6.2" (156mm)	Double	80	12-24 VDC	2
18/8	4262	6.2" (156mm)	Double/Quad	65	12-48 VDC	1**

* Clear Lens in Quad Mode ** Quad mode except Red Lens

This innovative series of strobe lights combines the latest in electronic design and state-of-the-art engineering technologies. From the rugged die-cast aluminum base to the conformal coated circuit board, these strobes are built with the toughest environments in mind. No tools are needed to change the flash tube or remove the threaded O-ring sealed lens.

The 4242 and 4262 have an expanded feature set based on the field proven 4241 and 4261 design. These lights include a jumper setting to select between double and quad flash modes, and a day night sensor to ensure the proper amount of light is being provided when it is needed.



- ▶ Self adjusting for day and night
- ▶ 1 1/2 turn Xenon flash tube plugs in, making replacement quick and easy
- ▶ Rugged, die-cast aluminum base for vibration resistance and heat dissipation
- ▶ Conformal coated circuit board
- ▶ Meets SAE J578 June 95 and SAE J1318 May 98
- ▶ 24-month warranty (6-month flash tube)
- ▶ 1" pipe mounting thread in base

4241 4261

Double Flash

Double Flash 80 flashes/min 12 joule energy 12-24 volt systems 2.5 Amps 28.8 watts SAE Class 2

4242 4262

Double / Quad Flash

Double Flash 65 flashes/min Day 13.5 / Night 8.1 joule energy 12-48 volt systems 3.7 Amps 33 watts SAE Class 1* 'e' CE
 Quad Flash 65 flashes/min Day 18.2 / Night 11.9 joule energy 12-48 volt systems 3.7 Amps 42 watts SAE Class 1* 'e' CE

* 4242 Clear Lens in Quad Mode - 4262 Quad mode except Red Lens

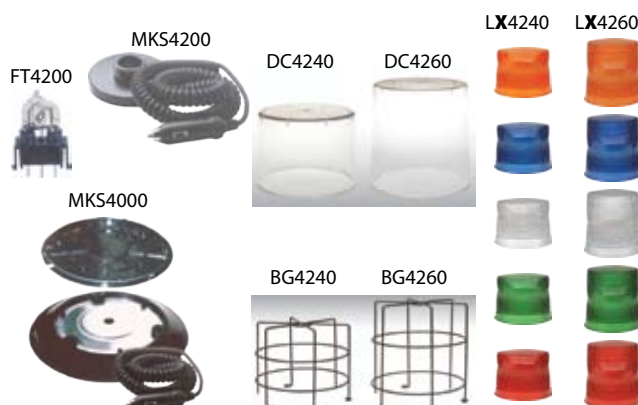
Available Configurations

	4241	4242	4261	4262
X - Lens Color: A - Amber, B - Blue, C - Clear, G - Green, R - Red	4241 X	4242 X	4261 X	4262 X
4200 Series & Mag Mount	4241 X MK	4242 X MK	4261 X MK	4262 X MK
Amber Lens, Black Top, Dust Cover, Brush Guard		4242AU		4262AU
Amber Lens & 2 1/2" Raised Collar (High Base)			4261AHB	4262AHB

Parts & Accessories

	4240 Series	4260 Series
Foam Gasket	FG4200 (standard)	
O-Ring	OR4200	
Flash Tube	FT4200	
Branch Guard	BG4240	BG4260
Dust Cover	DC4240	DC4260
Raised 2 1/2" Collar	HB4280	
Magnetic Mount	MKS4200	
Vacuum Mag Mount	MKS4000	
Lenses	LX4240	LX4260

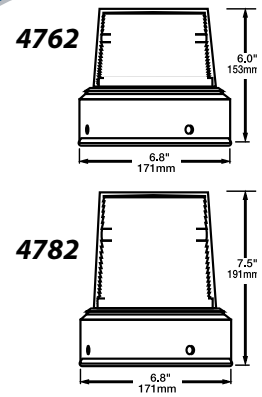
X - A - Amber, B - Blue, C - Clear, G - Green, R - Red



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage	SAE Class
17/21	4762	6.0" (153mm)	Double/Quad	80	12-48 VDC	1
17/21	4782	7.5" (191mm)	Double/Quad	80	12-48 VDC	1

The 4700 Series lights use a high performance power supply to meet the challenges of today's heavy duty user. These lights have a high and low profile dome made from impact resistant polycarbonate and a durable aluminum base. This unique design of the 4700 Series strobe dome enhances light output by completely filling the dome. The lights use a helical style flash tube - the toughest available on the market. Mounting is simple with the included J-Bolt kit, along with a Heavy Duty rubber base gasket that wraps around the base. The model 4700 strobe comes standard with 3 wire selectable 2x (double flash) or 4x (quad flash). Standard voltage on the model 4700 is 12 - 48 VDC, to meet the needs of automotive, construction, and electric fork lift requirements. Meets SAE J1318 Standards, and is a Class 1 Light.

- ▶ 1 1/2 turn Xenon flash tube assembly
- ▶ Included clear dust cover
- ▶ J-Bolt standard mounting
- ▶ Flush / Pipe / mounting available (MA4700)
- ▶ Double / Quad (3 wire selectable)
- ▶ Conformal coated electronics
- ▶ Magnetic mounting available
- ▶ Meets SAE J578 June 95 and SAE J1318 May 98
- ▶ 24-month warranty (6-month flash tube)



Double / Quad Flash

4762 4782

Double Flash	80 flashes/min	17 joule energy	12-48 volt systems	2.3 Amps	29 watts	SAE Class 1
Quad Flash	80 flashes/min	21 joule energy	12-48 volt systems	3.3 Amps	38 watts	SAE Class 1

Available Configurations

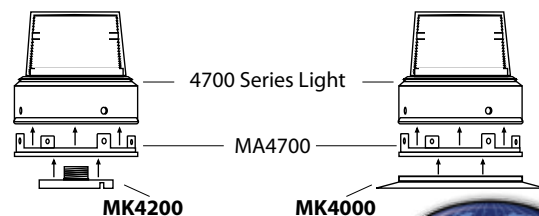
	4762	4782
X - Lens Color: A - Amber, B - Blue, C - Clear, G - Green, R - Red	4762X	4782X
Amber lens, Brush Guard, MA4700	4762AU	4782AU

Parts & Accessories

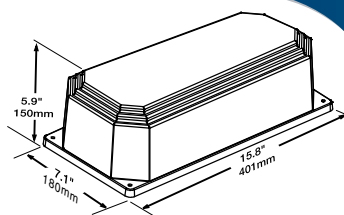


	4762	4782
Rubber Gasket	RG4700	
Foam Gasket	FG4700	
Flash Tube	FT4760	FT4780
Branch Guard	BG4760	BG4780
Dust Cover	DC4760	DC4780
Pipe Mount	MA4700	
Magnetic Mount Kit	MKS4200 and MA4700	
Vacuum Mag Mount Kit	MKS4000 and MA4700	
Vacuum Mag Mount	MKS4000	
Lenses	LX4740	LX4760

X - A - Amber, B - Blue, C - Clear, G - Green, R - Red



5100 SERIES



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage	SAE Class
26	5111	5.9" (150mm)	Double	66	12-48 VDC	2
32	5112	5.9" (150mm)	Quad	66	12-48 VDC	2

This new mini-bar combines Preco's proven technology from the 4700 series J-Bolt power supplies to the strength and durability from the base and outer cover of the 5200 series rotators. The proven technology is backed up by the use of dual power supplies to help ensure a functioning strobe at all times. The multiple configurations available allow easy customization for your work environment. From internal lens and outer cover colors to various mounting options, this mini-bar is all that you need for your warning lighting needs.



- ▶ 1 1/2 turn Xenon flash tube plugs in, making replacement quick and easy
- ▶ Dual power supplies
- ▶ Diagonal mirror
- ▶ Durable polycarbonate lens
- ▶ Foam mounting gasket for vibration resistance and noise damping
- ▶ Class 2 SAE J1318 May 98 and Meets SAE J578 June 95
- ▶ 24-month warranty (6-month flash tube)

5111

Double Flash

Double Flash	66 flashes/min	26 joule energy	12-48 volt systems	3.2 Amps	37 watts	SAE Class 2
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5112

Quad Flash

Quad Flash	66 flashes/min	32 joule energy	12-48 volt systems	3.9 Amps	47 watts	SAE Class 2
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Configurations

Models:

Model	Permanent Mount:	5111	Vacuum Magnetic Mount:	5121
Double				
Quad				

Covers and Lenses:

A - Amber	C - Clear
B - Blue	G - Green
	R - Red

To Order:

X	X	X	X	X	X	X
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Model Number Outer Cover Color #1 Strobe-Left Lens Color #2 Strobe-Right Lens Color

*Some combinations require special quotes

Example: 5121CAA

This is a Vacuum Magnetic Mounted double flash strobe light with a clear outer cover and two inner amber strobe lenses.

Parts & Accessories

	5111	5112
Flash Tube	FT4760	
Vacuum Mag Mount Kit	MK5000	
Strobe Lenses	LX4760	
Outer Lenses	OC5000X	

X - A - Amber, B - Blue, C - Clear, G - Green, R - Red



FT4760



MK5000

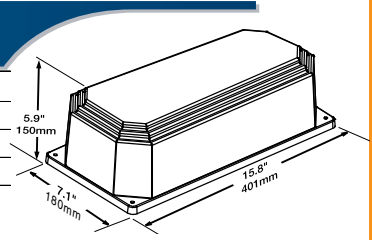
LX4760



OC5000X



Model	Height	Flashes Per Minute		Voltage	SAE Class	California Title 13
		Rotator	Total			
5211	5.9" (150mm)	80	240	12VDC	1	Yes
5212	5.9" (150mm)	80	240	12-36VDC	1	Yes
5213	5.9" (150mm)	175	525	12VDC	1	No
5214	5.9" (150mm)	175	525	12-36VDC	1	No



The 5200 series mini-bar rotator family has combined the latest in electronics with state-of-the-art light projection technology! Multiple configurations are available that allow easy customization for your work environment. From available light filters and outer lens colors to various mounting options, this mini-bar is all that you need for your warning lighting needs.

- ▶ Two Halogen rotators
- ▶ Permanent mount and optional vacuum magnetic mount
- ▶ Diagonal mirror
- ▶ Durable polycarbonate lens
- ▶ Foam mounting gasket for vibration resistance and noise dampening
- ▶ Class 1 SAE J845 May 97 and Meets SAE J578 June 95
- ▶ 24-month warranty, 6-month warranty halogen bulb



5211 5212

5211	240 total flashes/min	12 volt systems	8.7 Amps	55 watt rotators	California Title 13	SAE Class 1	'e' CE
5212	240 total flashes/min	12-36 volt systems	8.7 Amps	55 watt rotators	California Title 13	SAE Class 1	'e' CE

High Speed Rotator

5213 5214

5213	525 total flashes/min	12 volt systems	9.8 Amps	55 watt rotators	SAE Class 1	'e' CE
5214	525 total flashes/min	12-36 volt systems	9.8 Amps	55 watt rotators	SAE Class 1	'e' CE

Available Configurations

Mounting		MODELS							
		5211		5212		5213		5214	
		Flush	Vac Mag Mnt	Flush	Vac Mag Mnt	Flush	Vac Mag Mnt	Flush	Vac Mag Mnt
Outer Cover Color	A - Amber	5211A	5221A	5212A	5222A	5213A	5223A	5214A	5224A
	B - Blue	5211B	5221B	5212B	5222B	5213B	5223B	5214B	5224B
	C - Clear	5211C	5221C	5212C	5222C	5213C	5223C	5214C	5224C
	G - Green	5211G	5221G	5212G	5222G	5213G	5223G	5214G	5224G
	R - Red	5211R	5221R	5212R	5222R	5213R	5223R	5214R	5224R
Filter Color w/ Clear Cover		A - Amber	5211CAA	5221CAA	--	--	--	--	--

Parts & Accessories



BB5211
(12V)



MT5211
MT5213



MK5000

	5211	5212	5213	5214
Halogen Bulb	BB5211	BB5211	BB5211	BB5211
Rotator Motor	MT5211	MT5211	MT5213	MT5213
Vacuum Mag Mount Kit	MK5000			
Filters Amber	FA5000			
Outer Lenses	OC5000X			

X - A - Amber, B - Blue, C - Clear, G - Green, R - Red

X - A - Amber, B - Blue, C - Clear, G - Green, R - Red

OC5000X



STROBES

3318 STROBE



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage
1.5	3318	3.8" (95mm)	Single	80	12-110 VDC

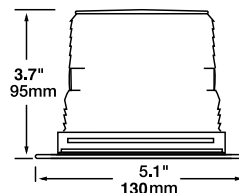
- ▶ 1.8 inch long flash tube snaps in, making replacement quick and easy
- ▶ Twist-on lens with sealed O-ring for easy flash tube replacement
- ▶ Rugged, ABS plastic base for vibration resistance and heat dissipation
- ▶ Fully encapsulated circuit board
- ▶ 24-month warranty (6-month flash tube)

Single Flash	80 flashes/min	1.5 joule energy	12-110 volt systems	0.25 Amps	3 watts	'e' CE
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Parts & Accessories

Flash Tube	FT3318
Magnetic Mount Kit	MK3318
Lenses	Red
	Amber
	Blue
	Clear
	Green

LA3318	LB3318	LC3318	LG3318	LR3318
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3951 STROBE



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage
1.5	3951	5.2" (132mm)	Single	85	12-80 VDC

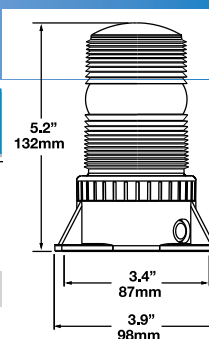
- ▶ 2-hole mounting
- ▶ Screw on lens
- ▶ Field replaceable flash tube
- ▶ 24-month warranty (6-month flash tube)

Single Flash	85 flashes/min	1.5 joule energy	12-80 volt systems	0.3 Amps	6 watts
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Parts & Accessories



Flash Tube	FT3951
Lenses	Amber
	Blue
	Clear
	Green
	Red



3421 ETA STROBE

High-Speed Strobe



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage
11.5	3421ETA	6.2" (156mm)	Single	125 +/- 8	24 VDC

- ▶ 1.4 million candlepower
- ▶ Xenon flash tube
- ▶ Rugged, die-cast aluminum base for vibration resistance and heat dissipation
- ▶ Standard flange mount and 1" (25mm) O.D. pipe mount combination
- ▶ Conformal coated circuit board
- ▶ Meets European EMI/RFI requirements per EN50082.1 and EN50082.2
- ▶ Meets SAE J1318 Apr 88
- ▶ Amber color per European ECE 65
- ▶ European 'E' Approval

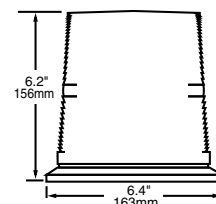
Single Flash	125 +/- 8 flashes/min	11.5 joule energy	24 volt systems	1.5 Amps	29 watts	'e' CE 'E'
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Parts & Accessories



Foam Gasket	FG4200 (standard)
	FG4280
O-Ring	OR4200
Flash Tube	FT3864

Branch Guard	BG4260
Dust Cover	DC4260
Magnetic Mount	MKS4200
Vacuum Mag Mount	MKS4000



3971 STROBE



Joules	Model	Height	Flash Pattern	Flashes Per Minute	Voltage
1.5	3971	2.6" (67mm)	Single	80	12-110 VDC

- ▶ 2-hole mounting
- ▶ Replaceable flash tube
- ▶ High-energy, solid-state circuitry
- ▶ Fully encapsulated circuit board
- ▶ O-ring provides weatherproof seal
- ▶ Universal mounting
- ▶ 24-month warranty (6-month flash tube)

Single Flash	80 flashes/min	1.5 joule energy	12-110 volt systems	0.5 Amps	3 watts
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Parts & Accessories

Flash Tube	FT3971
Strobe Lenses <i>Amber</i>	LA3971
Strobe Lenses <i>Blue</i>	LB3971



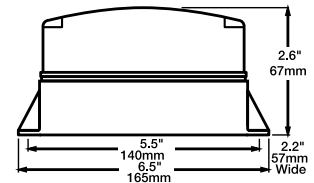
FT3971



LA3971

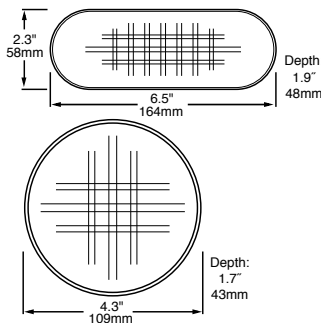


LB3971



7800 SERIES LED

Model	Mount	Flash Pattern	Diameter/Width	Flashes Per Minute	Voltage	Amps	SAE Class
7840	Grommet	Quad	4.3" (109mm)	80	12-24 VDC	0.45	SAE J845
7860	Grommet	Quad	6.5" (164mm)	80	12-24 VDC	0.45	SAE J845



Designed as direct replacements for existing lights, but with a much lower amp draw, these LEDs provide long life and low maintenance costs. Operating at 80 quad flashes per minute, these LEDs are definite attention getters. Reliability is ensured through potting of the solid-state

components which protects against moisture and contaminants. Preco's LED lights are warranted for 5 years on the light source and electronics, and 3 years on the plastic components.

Available only in amber or red



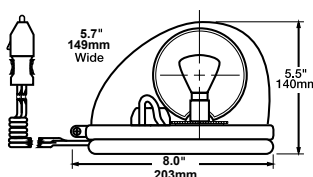
Model: 7840

Model: 7860



3920 ROTATOR

Model	Height	Width	Flashes Per Minute	Voltage	Amps
3920	5.5" (140mm)	5.7" (149mm)	80-105	12 VDC	3.85



- ▶ Magnetic mount
- ▶ 10' cord and cigarette lighter adapter plug
- ▶ Incandescent bulb
- ▶ 24-month warranty (6-month bulb)

Parts & Accessories

Bulb	BB3920
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PREMIER™ WARNING LIGHTS



Preco's line of Premier™ warning lights have been designed to meet your needs, from compact vehicles to large pieces of equipment, there is a light configuration for your needs.

Quick Reference Guide

LED

Model	Flashes Per Minute	Flash Pattern	Voltage	Mounting	Height	Diameter/Width	Depth	SAE Class	Page
7312	66	8x	12-80	Flange	3.7" (95mm)	5.1" (130mm)	--	3	3
7313	Steady Burn	Steady Burn	12-80	Flange	3.7" (95mm)	5.1" (130mm)	--	3	3
7412	75	Quad	12-80	Flange	5.2" (132mm)	3.9" (98mm)	--	3	3
7840	80	Quad	12-24	Grommet	--	4.3" (109mm)	1.7" (43mm)	1	9
7860	80	Quad	12-24	Grommet	2.3" (58mm)	6.5" (164mm)	1.9" (48mm)	1	9

STROBES

Model	Flashes Per Minute			Voltage	Joules	Day/Night Adjust	Mounting					Height	Diameter/Length	SAE Class	Page
	Single	Double	Quad				Flange	Flush	J-Bolt	Magnetic Mount	Pipe				
3318	80			12-110	1.5		Yes			Yes		3.7" (95mm)	5.1" (130mm)	--	8
3951	85			12-80	1.5		Yes					5.2" (132mm)	3.9" (98mm)	--	8
3971	80			12-110	1.5		Yes					2.6" (67mm)	5.5" (140mm)	--	9
4241		80		12-24	12		Yes			Yes	Yes	4.6" (117mm)	6.4" (163mm)	2	4
4261		80		12-24	12		Yes			Yes	Yes	6.2" (156mm)	6.4" (163mm)	2	4
5111		240		12-48	34			Yes		Yes	Yes	5.9" (150mm)	15.8" (401mm)	2	6
4762		80	80	12-48	17/21			Yes	Yes	Yes	Yes	6.0" (153mm)	6.8" (171mm)	1	5
4782		80	80	12-48	17/21			Yes	Yes	Yes	Yes	7.5" (191mm)	6.8" (171mm)	1	5
3421ETA	125			24	11.5		Yes			Yes	Yes	6.2" (156mm)	6.4" (163mm)	--	8
4242		65	65	12-48	13/18	Yes	Yes			Yes	Yes	4.6" (117mm)	6.4" (163mm)	1*-2	4
4262		65	65	12-48	13/18	Yes	Yes			Yes	Yes	6.2" (156mm)	6.4" (163mm)	1**-2	4
5112			240	12-48	42			Yes		Yes		5.9" (150mm)	15.8" (401mm)	2	6

* Clear Lens in Quad Mode

** Quad mode except Red Lens

ROTATORS

Model	Flashes Per Minute			Voltage	Mounting				Height	Diameter/Width	SAE Class	Page
	Number of rotators	Per Rotator	Total		Flush	Special	Magnetic Mount	Pipe				
3920	1	85-105	85-105	12			Yes		5.0" (127mm)	5.3" (133mm)		9
5211	2	80	240	12	Yes		Yes		5.9" (150mm)	15.8" (401mm)	1	7
5212	2	80	240	12-36	Yes		Yes		5.9" (150mm)	15.8" (401mm)	1	7
5213	2	175	525	12	Yes		Yes		5.9" (150mm)	15.8" (401mm)	1	7
5214	2	175	525	12-36	Yes		Yes		5.9" (150mm)	15.8" (401mm)	1	7

LED

Model	Voltage	Amps	Flashes Per Minute	Flash Pattern	SAE Class J845	Height	Diameter/ Width	Depth	Mounting
7312	12-80	0.18-0.5	66	--	3	3.7"(95mm)	5.1" (130mm)	--	Flange
7313	12-80	0.18-0.5	Steady Burn	Steady Burn	3	3.7"(95mm)	5.1" (130mm)	--	Flange
7412	12-80	0.3	75	Quad	3	5.2"(132mm)	3.9" (98mm)	--	Flange
7840	12-24	0.45	80	Quad	1	2.3"(58mm)	6.5" (164mm)	1.9" (48mm)	Grommet
7860	12-24	0.45	80	Quad	1	--	4.3" (109mm)	1.7" (43mm)	Grommet

Strobes

Model	Joules	SAE Class	Single	Double	Quad	Voltage	Watts*	Amps	Height	Diameter /Width	Length	Mounting	Optional Mounting
3318	1.5		80			12-110	3	0.25	3.7" (95mm)	5.1" (130mm)		Flange	Mag Mount
3421ETA	11.5		125			24	29	1.5	6.2" (156mm)	6.4" (163mm)		Flange / Pipe	Vacuum and Mag Mount
3951	1.5		85			12-80	6	0.3	5.2" (132mm)	3.9" (98mm)		Flange	
3971	1.5		80			12-110	3	0.5	2.6" (67mm)	5.5" (140mm)		Flange	
4241	12	2		80		12-24	28.8	2.5	4.6" (117mm)	6.4" (163mm)		Flange / Pipe	Vacuum and Mag Mount
4242	13/18	1**-2		65	65	12-48	42	3.7	4.6" (117mm)	6.4" (163mm)		Flange / Pipe	Vacuum and Mag Mount
4261	12	2		80		12-24	28.8	2.5	6.2" (156mm)	6.4" (163mm)		Flange / Pipe	Vacuum and Mag Mount
4262	13/18	1***-2		65	65	12-48	42	3.7	6.2" (156mm)	6.4" (163mm)		Flange / Pipe	Vacuum and Mag Mount
4762	17/21	1		80	80	12-48	38	3.3	6.0" (153mm)	6.8" (171mm)		J-Bolt	Flush/Pipe/Vacuum and Mag Mount
4782	17/21	1		80	80	12-48	38	3.3	7.5" (191mm)	6.8" (171mm)		J-Bolt	Flush/Pipe/Vacuum and Mag Mount
5111	26	2		66		12-48	37	3.2	5.9" (150mm)	15.8" (401mm)	7.1" (180mm)	Flush	Vacuum Mag Mount
5112	32	2			66	12-48	47	3.9	5.9" (150mm)	15.8" (401mm)	7.1" (180mm)	Flush	Vacuum Mag Mount

* Measured at 12 Volts

** Clear Lens in Quad Mode

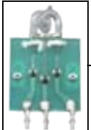
*** Quad mode except Red Lens

Rotators

Model	Voltage	Rotators	Flashes Per Minute Per Rotator	Flashes Per Minute Total	SAE Class	Diameter /Width	Height	Length	Mounting	Optional
3920	12	1	85-105	85-105		5.3" (133mm)	5.0" (127mm)	7.4" (187mm)	Magnetic	
5211	12	2	80	240	1	15.8" (401mm)	5.9" (150mm)	7.1" (180mm)	Flush	Vacuum Mag Mount
5212	12-36	2	80	240	1	15.8" (401mm)	5.9" (150mm)	7.1" (180mm)	Flush	Vacuum Mag Mount
5213	12	2	175	525	1	15.8" (401mm)	5.9" (150mm)	7.1" (180mm)	Flush	Vacuum Mag Mount
5214	12-36	2	175	525	1	15.8" (401mm)	5.9" (150mm)	7.1" (180mm)	Flush	Vacuum Mag Mount

PARTS & ACCESSORIES - LIGHTS

Flash Tubes / Bulbs

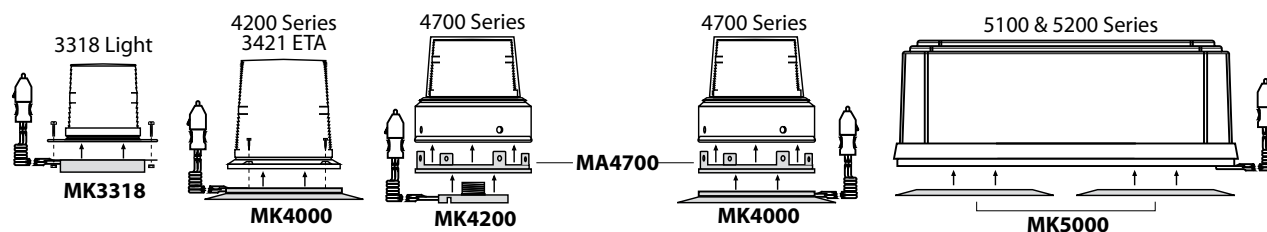
		3318	3421ETA	3920	3951	3971	3980	5211	5212	5213	5214	4200 Series	4762 Series	4782 Series	5100 Series
	FT3318	✓													
	FT3971				✓										
	FT3978					✓									
	FT3864	✓													
	FT4200										✓				
	FT3951			✓											
	FT4760											✓			✓
	FT4780												✓		
	BB3920		✓												
	BB5211						✓	✓	✓	✓					

Lenses & Outer Covers

		3318	3951	4240	4260	4762 5100	4782	5100 5200 Outer Cover
Amber		LA3318	LA3951	LA4240	LA4260	LA4760	LA4780	OC5000A
Blue		LB3318	LB3951	LB4240	LB4260	LB4760	LB4780	OC5000B
Clear		LC3318	LC3951	LC4240	LC4260	LC4760	LC4780	OC5000C
Green		LG3318	LG3951	LG4240	LG4260	LG4760	LG4780	OC5000G
Red		LR3318	LR3951	LR4240	LR4260	LR4760	LR4780	OC5000R

Magnetic Mount Kits

	3318	3421ETA	4200	4700	5100	5200
Magnetic Mount	MK3318	MK4200	MK4200	MA4700 + MK4200		
Vacuum Mag Mount		MK4000	MK4000	MA4700 + MK4000	MK5000	MK5000
Pipe / Flush Mount				MA4700		



Branch Guards and Dust Covers

	3421ETA	4241/4242	4261/4262	4762	4782
Branch Guard	BG4240	BG4240	BG4260	BG4760	BG4780
Dust Cover	DC4260	DC4240	DC4260	DC4760	DC4780

REPLACEMENT PARTS - LIGHTS

Halogen & Incandescent

Replacement Parts	3920	3931	3200
Amber Lens	LA3920	LA3911	LA3200
Branch Guard		BG3911	
Bulb	BB3920	BB3931	BB3200

Strobes

Replacement Parts	3318	3421	3951	3971	3980	4240	4260	4762	4782
Amber Lens	LA3318	LA3421	LA3951	LA3971		LA4240	LA4260	LA4760	LA4780
Blue Lens	LB3318		LB3951	LB3971		LB4240	LB4260	LB4760	LB4780
Clear Lens	LC3318		LC3951			LC4240	LC4260	LC4760	LC4780
Green Lens	LG3318		LG3951			LG4240	LG4260	LG4760	LG4780
Red Lens	LR3318		LR3951			LR4240	LR4260	LR4760	LR4780
Amber/Red lens					LR3980				
Dust Cover		DC4260				DC4240	DC4260	DC4760	DC4780
Branch Guard		BG4260				BG4240	BG4260	BG4760	BG4780
Xenon Flash Tube	FT3318	FT3864	FT3951	FT3971	FT3978	FT4200	FT4200	FT4760	FT4780
Magnetic Base Kit / Cigar Plug	MK3318	MK4200				MK4200	MK4200	MK4200	MK4200
Vacuum Mag Base Kit / Cigar Plug		MK4000				MK4000	MK4000	MK4000	MK4000
High Polycarbonate Skirt		HB4280				HB4280	HB4280		
Foam Gasket		FG4200				FG4200	FG4200	FG4700	FG4700
Rubber Gasket								RG4700	RG4700
Black Top		BT4000				BT4000	BT4000	BT4000	BT4000
O-Ring Replacement		OR4200			OR3980	OR4200	OR4200		
Mounting Adapter								MA4700	MA4700
Bulb					BB3980				
Square Ring				SR3970					
Installation Kit					KT3980				
Shock Mount	SM4200	SM4200				SM4200	SM4200		

LED Lens

Replacement Parts	7312	7313	7412
Amber Lens			LA3951
Blue Lens			LB3951
Clear Lens	LC3318	LC3318	LC3951
Green Lens			LG3951
Red Lens			LR3951

Mini-Bars

Replacement Parts	5111	5112	5211	5212	5213	5214
Amber Lens	LA4760	LA4760				
Blue Lens	LB4760	LB4760				
Clear Lens	LC4760	LC4760				
Green Lens	LG4760	LG4760				
Red Lens	LR4760	LR4760				
Amber Outer Cover	OC5000A	OC5000A	OC5000A	OC5000A	OC5000A	OC5000A
Blue Outer Cover	OC5000B	OC5000B	OC5000B	OC5000B	OC5000B	OC5000B
Clear Outer Cover	OC5000C	OC5000C	OC5000C	OC5000C	OC5000C	OC5000C
Green Outer Cover	OC5000G	OC5000G	OC5000G	OC5000G	OC5000G	OC5000G
Red Outer Cover	OC5000R	OC5000R	OC5000R	OC5000R	OC5000R	OC5000R
Xenon Flash Tube	FT4760	FT4760				
Vacuum Mag Base Kit / Cigar Plug	MK5000	MK5000	MK5000	MK5000	MK5000	MK5000
Bulb			BB5211	BB5211	BB5211	BB5211
Motor			MT5211	MT5211	MT5213	MT5213

ALARMS

HORNS & SWITCHES



6000 SERIES

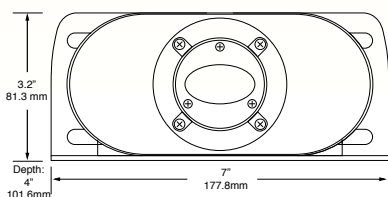
ACCURATE & RELIABLE

The 6000 Series Alarm from Preco brings reliability never seen before in the industry. The 6000 Series alarm operates within 2 decibels of the stated sound level, two times superior to the + / - 4 dB of competitors. By combining the best of (Preco's Patented) "speaker" and "driver" sound generating technologies, Preco has been able to greatly extend product life expectancy.



Models: 6002 / 6010

Decibels	Model	Sound Level	Voltage	Connection	SAE
97, 107, 112	6002	Manual Adjust	12-24 VDC	Wire Leads	A, B, C
87 to 112	6010	Self-Adjust	12-24 VDC	Wire Leads	A - D



- Increased reliability
- Operates within 2 decibels of the stated sound level
- Patented hybrid technology only available from Preco
- Vehicle Life Warranty
- Industry standard size and mounting holes
- Self Adjusting 87 to 112 decibels or Manually Adjustable with switch to 97, 107, & 112 decibels

Adjustable Sound Levels

The 6000 Series Self-Adjusting alarm adjusts to 5 dB above the ambient sound level and is within + or - 2 dB.

6002	Manually Adjustable	97, 107, 112 decibels	12-24 volt systems	SAE J994 Type A,B,C	'e' CE
6010	Self-Adjusting	87 to 112 decibels	12-24 volt systems	SAE J994 Type A - D	'e' CE

3000 SERIES ACCURATE & RELIABLE

The 3000 Series Alarm from Preco brings reliability and accuracy to a compact form for the first time. The 3000 Series alarm exceeds industry standards and provides you with an accurate back-up alarm that produces an audible warning that is ± 2 dB, far superior to the ± 4 dB of competitors and SAE requirements.

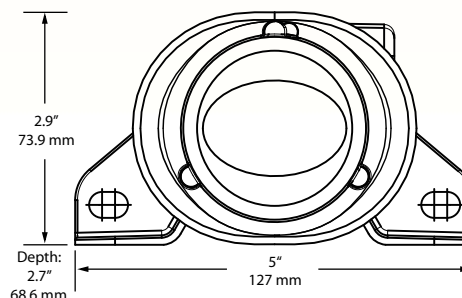


Model: 3002

**Vehicle
Life
Warranty**

Decibels	Model	Sound Level	Voltage	Connection	SAE
97 & 107	3002	Manual Adjust	12-36 VDC	Wire Leads	B, C

The 3000 Series alarms utilize reverse mounted speaker technology to increase output while maintaining ruggedness and a small size. At only 5" x 2.9" and switchable between 97 and 107 dB, this alarm is extremely flexible and suitable for a large selection of vehicles and equipment. The added durability of a reverse mounted speaker and epoxy sealed electronics make this a great choice for many fleet types. This 3000 Series comes with 18 gauge wires that are 12" (300mm) nominal in length. Factory set to 97 dB, switchable volume levels are accomplished by connecting the grounding leads together to switch to the 107 dB level. Vehicle Life Warranty.



Adjustable Sound Levels

3002

Manually Adjustable

97 and 107 decibels

12-36 volt systems

SAE J994 Type B, C

'e' CE

200 SERIES BAC-A-LARM®

Decibels	Model	Sound Level	Voltage	Connection	SAE
87	220	Single	12-24 VDC	Studs	D
87	ELT278	Single	12-72 VDC	Studs	D
97	DS232	Dual-Sound	12 VDC	Studs	C
97	230	Single	12 VDC	Studs	C
97	230LV	Single	12 VDC	Studs	C
97	240	Single	12-24 VDC	Studs	C
97	240CS	Single	12-24 VDC	Wire Leads	C
97	ELT248	Single	12-48 VDC	Studs	C
97	240LV	Single	24 VDC	Studs	C
102	250	Single	12-24 VDC	Studs	F
102	FS255	Single	12-24 VDC	Studs	F
107	270	Single	12-24 VDC	Wire Leads	B
77 to 97	1028	Self-Adjust	12-48 VDC	Studs	C - E
77 to 102	1020	Self-Adjust	12-24 VDC	Studs	E - F



220, 230, 240, 250, ELT248
ELT278, 1020, 1028, FS255



230LV, 240LV, DS232



240CS



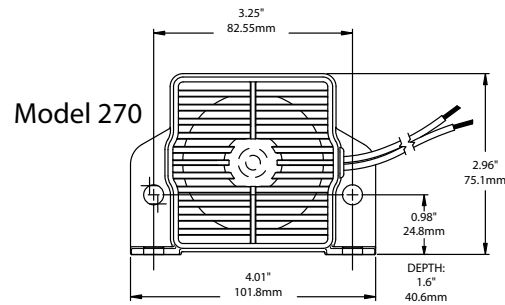
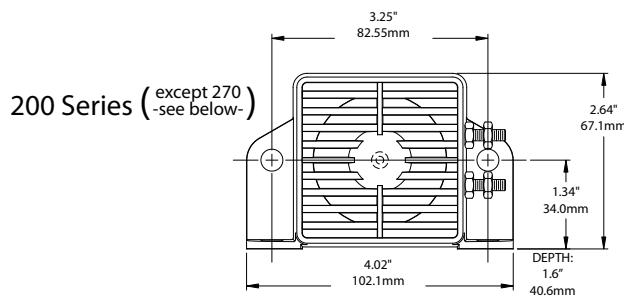
270

220 225 230 240 250

Basic Models

Field-proven dependability has thrust the 200 Series alarms into the highest demand category of any low sound level alarm on the market. Used by major OEMs. These alarms have #8-32 UNC terminal studs. Weight: 10 oz. (284 g).

220	Single sound level	87 decibels	12-24 volt systems	SAE J994 Type D	CE
230	Single sound level	97 decibels	12 volt systems	SAE J994 Type C	'e' CE
240	Single sound level	97 decibels	12-24 volt systems	SAE J994 Type C	'e' CE
250	Single sound level	102 decibels	12-24 volt systems	SAE J994 Type F	'e' CE



High Sound Level - Wire Leads



270

This compact, high sound level alarm is specifically designed for 107 decibels. This solid state alarm is polarity protected. The 270 alarm has an approximate current draw of 0.5 Amps. Self-resonating circuitry automatically adjusts to environmental conditions to ensure a constant 107 decibels output. Weight: 12 oz. (340 g)

270	High sound level	107 decibels	12-24 volt systems	SAE J994 Type B	'e' CE
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Night Silent

240CS*

The Night Silent Alarm is designed for use at nighttime in sound sensitive areas as mandated. The feature disengages the back-alarm when voltage is applied to the blue wire either via a dash toggle or wired to the headlights. Weight: 10 oz. (284 g)

240CS	Single sound level	97 decibels	12-24 volt systems	SAE J994 Type C	CE
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Low Voltage Warning



230LV 240LV

Prevent battery failure by alerting vehicle operators of critically low battery voltage conditions with a distinct tone. This multi-function, dual-tone, warning device doubles as a 97 decibel alarm while monitoring battery voltage. This alarm has #8-32 UNC terminal studs. Weight: 10 oz. (284 g)

230LV	Single level	97 decibels	12 volt systems	SAE J994 Type C	
240LV	Single level	97 decibels	24 volt systems	SAE J994 Type C	

Self-Adjusting

1020 1028

Compact, self-adjusting alarm. Ideal for low sound level. Adjusts to a minimum of five decibels above the surrounding noise. Rugged and reliable solid state electronics. This alarm has #8-32 UNC terminal studs. Weight: 10 oz. (284 g)

1020	Self-Adjusting	77 to 102 decibels	12-24 volt systems	SAE J994 Type E-F	'e' CE
1028	Self-Adjusting	77 to 97 decibels	12-48 volt systems	SAE J994 Type C-E	'e' CE

Electric Vehicles

ELT248 ELT278 ELT280

Specifically designed low sound level alarms for electric powered vehicles, the ELT 248, ELT 278, and ELT 280 provide voltage and decibel options at minimal cost. These alarms have #8-32 UNC terminal studs. Weight: 10 oz. (284 g)

ELT248	Single sound level	97 decibels	12-48 volt systems	SAE J994 Type C	'e' CE
ELT278	Single sound level	87 decibels	12-72 volt systems	SAE J994 Type D	'e' CE

Specialty

DS232 FS255

DS232 - This dual sound alarm is designed for use in special applications. The pulse rate is selected by applying positive power to one of two terminals. Dual pulse rate: 1) Bac-a-larm rate of 80 bursts per minute 2) fast pulse rate of 10 bursts per second.

FS255 - Fast-sounding alarm for special applications requiring a unique sound option. This alarm is capable of quickly demanding attention with sound pulses at 10 bursts per second. These alarms have #8-32 UNC terminal studs. Weight: 10 oz. (284 g)

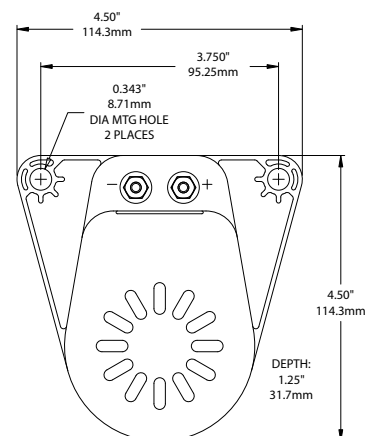
DS232	Single sound level / Dual pulse rate	97 decibels	12 volt systems	SAE J994 Type C	'e' CE
FS255	Single sound level	102 decibels	12-24 volt systems	SAE J994 Type F	'e' CE

* These alarms do not meet OSHA or NIOSH requirements for back-up alarms

LDA 50 TAIL-GATOR®

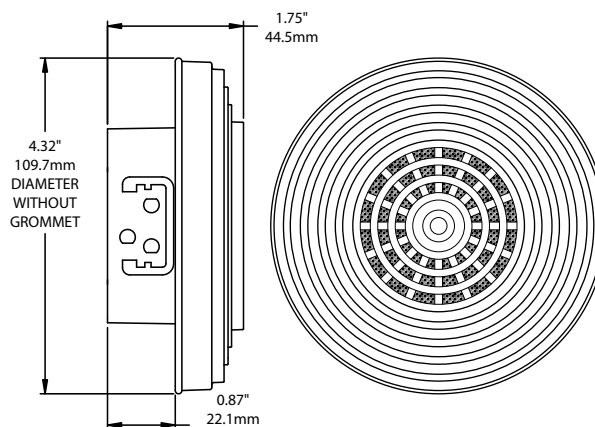


The PRECO TAIL-GATOR has set the quality standard for more than 25 years. Satisfied customers have made it the best-selling alarm in the industry. These alarms have #8-32 UNC terminal studs. Weight: 12 oz. (340 g)



40 SERIES BAC-A-LARM®

Decibels	Model	Sound Level	Voltage	Connection	SAE
97	4030	Single	12 VDC	Female Plug	C
102	4050	Single	12-24 VDC	Female Plug	F
77 to 97	4028	Self-Adjust	12-48 VDC	Female Plug	C - E

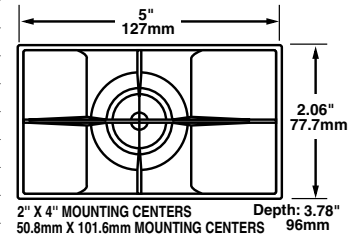


4030(K) 4050(K) 4028(K)

These flush-mount alarms fit into any 40 series round hole and require no tools for installation. They utilize industry standard grommets and pigtails. The alarms are well-suited for applications requiring a compact profile. Weight: 12 oz. (341 g)
4028 is U.L. recognized for electric vehicles and forklifts.

4030	Single Function	97 Decibels	12 volt systems	SAE J994 Type C	CE
4050	Single Function	102 Decibels	12-24 volt systems	SAE J994 Type F	CE
4028	Self-Adjusting	77-97 Decibels	12-48 volt systems	SAE J994 Type E-C	UL CE

Decibels	Model	Sound Level	Voltage	Connection	SAE
107	360	Single	12-24 VDC	Studs	B
107	360C	Single	12-24 VDC	Wire Leads	B
97 & 107	370	Manual Adjust	12-24 VDC	Studs	B, C
112	380	Single High	12-24 VDC	Studs	A
112	380C	Single High	12-24 VDC	Wire Leads	A
107 & 112	390	Manual Adjust	12-24 VDC	Studs	A, B
82 to 107	1048	Self-Adjust	12-48 VDC	Studs	B - F
87 to 112	1059	Dual Function	12-24 VDC	Studs	A - F
87 to 112	1040	Self-Adjust	12-24 VDC	Studs	A - D
97 to 112	1045	Self-Adjust	12-24 VDC	Studs	A - C



360, 370, 380, 390

360C, 380C

1040, 1045, 1048, 1059

Low - Medium - High Sound

360 370 380 390

Versatile, durable housing provides optimum value for these low, medium, and high sound level alarms. Universal mounting provides vertical or horizontal mounting options. #8-32 UNC terminal studs. Used by major OEMs. Weight: 1 lb. 8 oz. (681 g)

360	Single sound level	107 decibels	12-24 volt systems	SAE J994 Type B	'e' CE
370	Manually adjustable	97 and 107 decibels	12-24 volt systems	SAE J994 Type B & C	'e' CE
380	Single sound level	112 decibels	12-24 volt systems	SAE J994 Type A	'e' CE
390	Manually adjustable	107 and 112 decibels	12-24 volt systems	SAE J994 Type A & B	'e' CE

Wire Leads

360C 380C

Standard terminal studs are replaced by wire leads. The 18 gauge wires are 12" (300mm) nominal in length. Black: Negative. Red: Positive. Weight: 1 lb. 8 oz. (681g)

360C	Single sound level	107 decibels	12-24 volt systems	SAE J994 Type B	'e' CE
380C	Single sound level	112 decibels	12-24 volt systems	SAE J994 Type A	'e' CE

Self-Adjusting

1040 1045 1048

Our most popular line of self-adjusting alarms automatically adjust to 10 decibels above the surrounding noise, thus reducing noise pollution and irritation for operators, and workers. Versatile and compact universal mounting. These alarms have #8-32 UNC terminal studs. Used by major OEMs. Weight: 1 lb. 8 oz. (681 g)

1040	Self-Adjusting	87 to 112 decibels	12-24 volt systems	SAE Type A-D	'e' CE
1045	Self-Adjusting	97 to 112 decibels	12-24 volt systems	SAE Type A-C	'e' CE
1048	Self-Adjusting	82 to 107 decibels	12-48 volt systems	SAE Type B-F	'e' CE

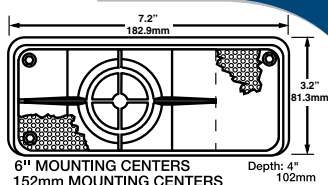
Specialty

1059

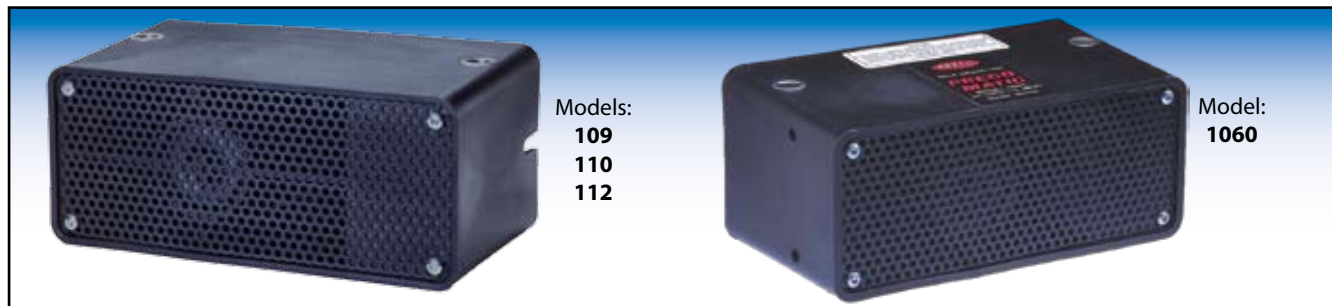
1059 - Self-adjusts automatically in alarm mode to produce 10 decibels nominal above the surrounding noise, thus reducing noise pollution and irritation for operators, and workers. Depending upon how power is applied, the unit can behave like a self-adjusting backup alarm, or as a single level pulsed warble sounding alarm at 112 dB. This alarm has #8-32 UNC terminal studs. Weight: 1 lb. 8 oz. (681 g)

1059	Dual Function	87 to 112 decibels	12-24 volt systems	SAE Type A-F	'e' CE
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100 SERIES BAC-A-LARM®



Decibels	Model	Sound Level	Voltage	Connection	SAE
112	110	Single	12-24 VDC	Studs	A
97 & 107	109	Manual Adjust	12-24 VDC	Studs	B, C
97, 107, 112	112	Manual Adjust	12-36 VDC	Studs	A, B, C
97 to 112	1060	Self-Adjust	12-24 VDC	Studs	A - C



109 110 112

Heavy-Duty

One of the most rugged, heavy-duty alarms on the market. These alarms are designed to withstand the most punishing environments. They have #8-32 UNC terminal studs on the back of the unit. Used by major OEMs. Weight: 2 lbs. 4 oz. (1.02 kg)

109	Dual Function	97 & 107 decibels	12-24 volt systems	SAE J994 Type B & C	
110	Single Function	112 decibels	12-24 volt systems	SAE J994 Type A	CE
112	Triple Function	97, 107, 112 decibels	12-36 volt systems	SAE J994 Type A, B & C	CE

1060

Self-Adjusting

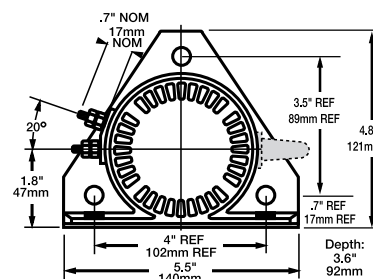
This rugged, self-adjusting alarm automatically adjusts to 10 decibels above the surrounding noise. OEM design housing mounts on 6" (152 mm) centers. Weight: 2 lbs. 4 oz. (1.02 kg)

1060	Self-Adjusting	97 to 112 decibels	12-24 volt systems	SAE J994 Type A-C	CE
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45 SERIES BAC-A-LARM®

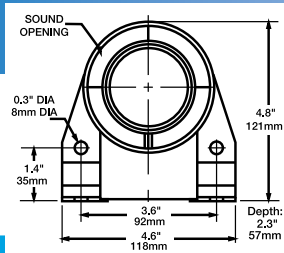


One of the most rugged, heavy-duty alarms on the market. These alarms are designed to withstand the most punishing environments. They have #8-32 UNC terminal studs on the back of the unit. Used by major OEMs. Weight: 1 lbs. 8 oz. (680 g)



45A	Single Function	107 decibels	12-24 volt systems	SAE J994 Type B	CE
45AA	Manually Adjustable	87 and 107 decibels	12-24 volt systems	SAE J994 Type B & D	CE

FH107

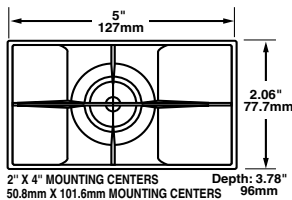


The FH107 is a solid state electronic horn designed for extremely long life and replaces high-maintenance electro-mechanical horns. This model is designed to meet or exceed all applicable SAE specifications. Used by major OEMs. Weight: 13.6 oz. (386 g)



Decibels	Model	Sound Level	Voltage	Connection	SAE
107	FH107	Continuous	12-48 VDC	Blade	L

FH312



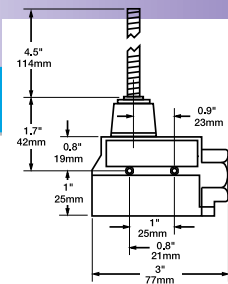
The FH312 is a solid state electronic horn designed for long life. Specifically designed for the material-handling industry. Used by major OEMs. Weight: 1 lb. 8 oz. (681 g) U.L. Recognized for electric vehicles and forklifts.



Decibels	Model	Sound Level	Voltage	Connection	SAE
112	FH312	Continuous	12-60 VDC	Studs	K



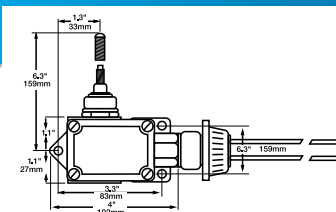
SWITCHES



Switch

SWM43

Water-resistant, metal housing with a 5 amp rating and a full 360° movement. SWM43 Switch can be wired in the field "normally open" or "normally closed." C.S.A. approval. U.L. recognized. Adjustable mounting bracket included. Used by major OEMs.



Switch

HDS54/55

These extra heavy-duty switches feature water-tight gaskets, a 5 amp rating and 360° movement. Pigtail included. C.S.A. approval. U.L. recognized. The HDS54 switch is wired "normally open," the HDS55 switch is wired "normally closed."



BAC-A-LARM® BACK-UP ALARMS



Preco offers a complete line of alarms with various sound levels and operating voltages to meet your alarm requirements on a broad range of equipment and work environment noise levels. The BAC-A-LARM® selected should have a sound level that is audible above the surrounding noise level.

SAE J994 CLASSES

Type A - 112 dB

Type B - 107 dB

Type C - 97 dB

Type D - 87 dB

Type E - 77 dB

Type F - Other

Quick Reference Guide

Decibels	Model	Sound Level	Voltage	Connection	SAE Class	Page
Fixed Output						
87	220	Single	12-24 VDC	Studs	D	16
87	ELT278	Single	12-72 VDC	Studs	D	17
97	230	Single	12 VDC	Studs	C	16
97	240	Single	12-24 VDC	Studs	C	16
97	4030	Single	12 VDC	Female Plug	C	18
97	230LV	Single	12 VDC	Studs	C	17
97	240CS	Single	12-24 VDC	Wire Leads	C	17
97	240LV	Single	24 VDC	Studs	C	17
97	DS232	Dual - Sound	12 VDC	Studs	C	17
97	ELT248	Single	12-48 VDC	Studs	C	17
97	LDA50	Single	12 VDC	Studs	C	18
102	250	Single	12-24 VDC	Studs	F	16
102	4050	Single	12-24 VDC	Female Plug	F	18
102	FS255	Single	12-24 VDC	Studs	F	16
107	270	Single	12-24 VDC	Wire Leads	B	17
107	360	Single	12-24 VDC	Studs	B	19
107	360C	Single	12-24 VDC	Wire Leads	B	19
107	45A	Single High	12-24 VDC	Studs	B	20
112	110	Single	12-24 VDC	Studs	A	20
112	380	Single High	12-24 VDC	Studs	A	19
112	380C	Single High	12-24 VDC	Wire Leads	A	19
Variable Output						
77 to 97	1028	Self-Adjust	12-48 VDC	Studs	C - E*	17
77 to 97	4028	Self-Adjust	12-48 VDC	Female Plug	C - E*	18
77 to 102	1020	Self-Adjust	12-24 VDC	Studs	E - F*	17
82 to 107	1048	Self-Adjust	12-48 VDC	Studs	B - F*	19
87 to 112	1040	Self-Adjust	12-24 VDC	Studs	A - D*	19
87 to 112	1059	Dual Function	12-24 VDC	Studs	A - F*	19
87 to 112	6010	Self-Adjust	12-24 VDC	Wire Leads	A - D**	14
97 to 112	1060	Self-Adjust	12-24 VDC	Studs	A - C*	20
97 to 112	1045	Self-Adjust	12-24 VDC	Studs	A - C*	19
87 & 107	45AA	Manual Adjust	12-24 VDC	Studs	B, D	20
97 & 107	370	Manual Adjust	12-24 VDC	Studs	B, C	19
97 & 107	109	Manual Adjust	12-24 VDC	Studs	B, C	20
97 & 107	3002	Manual Adjust	12-36 VDC	Wire Leads	B, C	14
107 & 112	390	Manual Adjust	12-24 VDC	Studs	A, B	19
97, 107, 112	112	Manual Adjust	12-36 VDC	Studs	A, B, C	20
97, 107, 112	6002	Manual Adjust	12-24 VDC	Wire Leads	A, B, C**	14
Forward Horns						
107	FH107	Continuous	12-48 VDC	Blade	L	21
112	FH312	Continuous	12-60 VDC	Blade	K	21

* Preco Self-Adjusting Alarms are designed to operate at +/- 4dB of the stated high and low dB levels.

These alarms are designed to operate at 5dB or greater above the ambient sound.

** Preco 3000 and 6000 Series Manual and Self-Adjusting Alarms are designed to operate at +/- 2dB of the stated high and low dB levels. The self-adjusting alarms are designed to operate at 5dB or greater above the ambient sound.

Model	Decibels	SAE	Sound Level	Voltage	Connection	Mounting	Sound Cycle/ Minute	Polarity Protected	Dual Polarity	Frequency (Nominal)	Spike Protected (Volts)	Max. Current	Weight	Housing
109	97 & 107	B, C	Manual Adjust	12-24	T	H	60-90	Yes		1150Hz	+100/-400	0.5	2 lb. 4 oz.	G
110	112	A	Single	12-24	T	H	60-90	Yes		1150Hz	+100/-400	1.0	2 lb. 4 oz.	G
112	97, 107, 112	A, B, C	Manual Adjust	12-36	T	H	60-90		Yes	1150Hz	+/-150	0.5	2 lb. 4 oz.	G
1060	97 to 112	A - C*	Self-Adjust	12-24	T	H	60-90	Yes		1110Hz	+100/-400	0.5	2 lb. 4 oz.	G
220	87	D	Single	12-24	T	U	60-90	Yes		1200Hz	+30/-400	0.2	10 oz.	G
230	97	C	Single	12	T	U	60-90	Yes		1200Hz	+30/-400	0.2	10 oz.	G
240	97	C	Single	12-24	T	U	60-90	Yes		1200Hz	+100/-400	0.2	10 oz.	G
250	102	F	Single	12-24	T	U	60-90	Yes		1200Hz	+100/-400	0.2	10 oz.	G
270	107	B	Single	12-24	W	U	60-90	Yes		1200Hz	+100/-400	0.5	11.5 oz.	G
1020	77 to 102	E - F*	Self-Adjust	12-24	T	U	60-90	Yes		1300Hz	+100/-400	0.2	10 oz.	G
1028	77 to 97	C - E*	Self-Adjust	12-48	T	U	60-90	Yes		1300Hz	+100/-400	0.2	10 oz.	G
230LV	97	C	Single	12	T	U	60-90	Yes		1200Hz	+100/-400	0.2	10 oz.	G
240CS	97	C	Single	12-24	W	U	60-90	Yes		1200Hz	+100/-400	0.2	10 oz.	G
240LV	97	C	Single	24	T	U	60-90	Yes		1200Hz	+100/-400	0.2	10 oz.	G
DS232	97	C	Dual - Sound	12	T	U	10/Sec	Yes		1200Hz	+100/-400	0.3	10 oz.	G
ELT248	97	C	Single	12-48	T	U	60-90	Yes		1250H	+100/-400	0.2	10 oz.	G
ELT278	87	D	Single	12-72	T	U	60-90	Yes		1200Hz	+250/-400	0.2	10 oz.	G
FS255	102	F	Single	12-24	T	U	10/Sec	Yes		1200Hz	+100/-400	0.3	10 oz.	G
360	107	B	Single	12-24	T	U	60-90	Yes		1200Hz	+100/-400	0.5	1 lb. 8 oz.	G
370	97 & 107	B, C	Manual Adjust	12-24	T	U	60-90	Yes		1200Hz	+100/-400	0.5	1 lb. 8 oz.	G
380	112	A	Single High	12-24	T	U	60-90	Yes		1200Hz	+100/-400	1.0	1 lb. 8 oz.	G
390	107 & 112	A, B	Manual Adjust	12-24	T	U	60-90	Yes		1200Hz	+100/-400	1.0	1 lb. 8 oz.	G
1040	87 to 112	A - D*	Self-Adjust	12-24	T	U	60-90	Yes		1150Hz	+100/-400	0.5	1 lb. 8 oz.	G
1045	97 to 112	A - C*	Self-Adjust	12-24	T	U	60-90	Yes		1150Hz	+100/-400	0.5	1 lb. 8 oz.	G
1048	82 to 107	B - F*	Self-Adjust	12-48	T	U	60-90	Yes		1150Hz	+100/-400	0.3	1 lb. 8 oz.	G
1059	82 to 112	A - F*	Dual Function	12-24	T	U	60-90	Yes		1150Hz	+100/-400	0.5	1 lb. 8 oz.	G
360C	107	B	Single	12-24	W	U	60-90	Yes		1200Hz	+100/-400	0.5	1 lb. 8 oz.	G
380C	112	A	Single High	12-24	W	U	60-90	Yes		1200Hz	+100/-400	1.0	1 lb. 8 oz.	G
3002	97 & 107	B, C**	Manual Adjust	12-36	W	U	80	Yes		1330Hz	+200/-500	0.5	11.5 oz.	G
4028	77 to 97	C - E*	Self-Adjust	12-48	F	D	60-90	Yes		1200Hz	+100/-400	0.2	12 oz.	G
4030	97	C	Single	12	F	D	60-90	Yes		1200Hz	+30/-400	0.2	12 oz.	G
4050	102	F	Single	12-24	F	D	60-90	Yes		1200Hz	+100/-400	0.3	12 oz.	G
45A	107	B	Single High	12-24	T	U	60-90		Yes	1200Hz	+/-150	0.5	1 lb. 8 oz.	G
45AA	87 & 107	B, D	Manual Adjust	12-24	T	U	60-90		Yes	1200Hz	+/-150	0.5	1 lb. 8 oz.	G
6002	97, 107, 112	A, B, C**	Manual Adjust	12-24	T	U	80	Yes		1220Hz	+200/-500	0.5	2 lb.	G
6010	87 to 112	A - D**	Self-Adjust	12-24	T	U	80	Yes		1220Hz	+200/-500	0.5	2 lb.	G
LDA50	97	C	Single	12	T	V	60-90	Yes		1300Hz	+30/-400	0.2	12 oz.	G
FH107	107	L	Continuous	12-48	B	U	Horn	Yes		1150Hz	+100/-400	0.4	12 oz.	G
FH312	112	K	Continuous	12-60	B	U	Horn	Yes		900Hz	+100/-400	0.3	1 lb. 8 oz.	G

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** Preco 3000 & 6000 Series Manual and Self-Adjusting Alarms are designed to operate at +/- 2dB of the stated high and low dB levels.

The self-adjusting alarms are designed to operate at 5dB or greater above the ambient sound.

Connection	F - Female Plug
T - Terminals	P - Pigtail
W - Wire Leads	B - Blade

Mounting	
H - Horizontal	V - Vertical
U - Universal	D - 4" DOT

Housing
G - Glass/Reinforced Nylon

Decibel output on multi-voltage alarms measured at higher voltage - dB slightly lower at lower voltage

CROSS REFERENCE CHARTS - STROBES

Match Codes: F - FUNCTION MATCH M - MOUNTING MATCH S - SIZE MATCH

Whelen

Model	Preco Product	Match
1502	3318	FMS
1502M	3318 + MK3318	FMS
2004BLA	4241	MS
2004BHA	4261	MS
2004BLAM	4241AMK	MS
2004BHAM	4262AMK	MS
2012HP	3421ETA	FMS
2012HPM	3421ETA + MKS4200	FMS
2015LP	4242	FMS
2015HP	4262	FMS
2015LPM	4242AMK	FMS
2015HPM	4262AMK	FMS
2015LC	4242	FMS
2015HC	4262	FMS
G5M	5112 + MK5000	FMS
G5P	5112	FMS
G5MC	5112 + MK5000 + Lens Color	FMS
G5PC	5112 + Lens Color	FMS
G7M	5111 + MK5000	FMS
G7P	5111	FMS
G7MC	5111 + MK5000 + Lens Color	FMS
G7PC	5111 + Lens Color	FMS

Federal Signal

Model	Preco Product	Match
211681	4261	FMS
211683	4262	FMS
211680	4241	FMS
211690	4242	FMS
220100	3318	FMS
210873	3318 + MK3318	FMS
220200	3318	FMS
220208	3318 + MK3318	FMS
250121	4262	FM
250141	4262AMK	FM
251121	4242	FM
251141	4242AMK	FM
250821	4262	FM
250841	4262AMK	FM
251821	4242	FM
251841	4242AMK	FM
251621	4241	FM
250621	4261	FM
251721	4242 + DC4200 + BT4000	FM
211740	4762	FMS
211741	4762	FMS
211742	4782	FMS
211744	4782	FMS
420400	4782	FMS
211946	4782	FMS
211789	4782 + MA4700 + MKS4200	FMS
420406	4782 + MA4700 + MKS4200 + BT4000	FMS
420200	4762	FMS

Federal Signal - cont.

Model	Preco Product	Match
211944	4762	FMS
420205	4762	FMS
420208	4762 + MA4700	FMS
453000	5122	FMS
453001	5112	FMS
415712	5111	FMS

Star Lights

Model	Preco Product	Match
9200S	5111	FMS
9200Q	5112	FMS
9200SM	5121	FMS
9200SMQ	5122	FMS
203MV	3318	FMS
203MV8	3318	FMS
204MV	3950	FMS
240S	4241	MS
240SM	4241	MS
240SD	4241 or 4242	FMS
240SQ	4242	FMS
240SF	4241	MS
240SDF	4241 or 4242	FMS
240SQF	4242	FMS
240SMD	4241AMK or 4242AMK	FMS
240SMQ	4242AMK	FMS
240C	4261	MS
240CM	4261AMK	MS
240CD	4261 or 4262	FMS
240CQ	4262	FMS
240CF	4261	MS
240CFD	4261 or 4262	FMS
240CQF	4262	FMS
240CMD	4261AMK or 4262AMK	FMS
240CMQ	4262AMK	FMS
240A	4261 + DC4262	MS
240AD	4261 or 4262 + DC4260	FMS
240AQ	4262 + DC4260	FMS
240AF	4261 + DC4260	MS
240ADF	4261 or 4262 + DC4260	FMS
240AQF	4262 + DC4260	FMS
250S	4762 + MA4700	MS
250SH	4762 + MA4700	MS
250SD	4762 + MA4700	FMS
250SDH	4762 + MA4700	FMS
250SDHP	4762 + MA4700	FMS
250SQ	4762 + MA4700	FMS
250SQH	4762 + MA4700	FMS
250A	4782 + MA4700	MS
250AH	4782 + MA4700	MS
250AD	4782 + MA4700	FMS
250ADH	4782 + MA4700	MS
250ADHP	4782 + MA4700	MS
250AQ	4782 + MA4700	FMS
250AQH	4782 + MA4700	FMS
250C	4782 + MA4700	MS
250CH	4782 + MA4700	MS
250CD	4782 + MA4700	FMS

Star Lights - cont.

Model	Preco Product	Match
250CDH	4782 + MA4700	FMS
250CDHP	4782 + MA4700	MS
250CQ	4782 + MA4700	FMS
250CQH	4782 + MA4700	FMS
200AD	4782	FS
200ADH	4782	FS
200AQ	4782	FS
200AQH	4782	FS
200BD	4782	FS
200BDH	4782	FS
200BQ	4782	FS
200BQH	4782	FS
200C	4762	MS
200CD	4762	MS
200CQ	4762	MS
200CFD	4762 + MA4700	FS
200CFQ	4762 + MA4700	FS
200J	4762	MS
200JQ	4762	MS
200J-1	4762	MS

ECCO

Model	Preco Product	Match
5350	5111 Double / 5112 Quad	MS
5350VM	5121 Double / 5122 Quad	MS
6110	3421ETA	FS
6111	3421ETA	FS
6113	3121	FMS
6120	4261	FS
6121	4262	FS
6123	4262	FMS
6126	4262	FS
6220	3950	FMS
6400	3318	FMS
6410	3318	FMS
6410MG	3318 + MK3318	FMS
6520	4762	MS
6524	4762	MS
6530	4782	MS
6534	4782	MS
6550	4242	FMS
6550MG	4241AMK	FMS
6550VM	4241 + MKS4000	FMS
6570	4262	FMS
6570MG	4261AMK	FMS
6570VM	4261 + MKS4000	FMS
6650	4242	MS
6650MG	4242AMK	MS
6655	4242	FMS
6670	4262	MS
6670MG	4262AMK	MS
6675	4262	FMS
6690	4261AHB	MS
6695	4261AHB	FMS
6750	4242	MS
6770	4262	MS
6975	4242	FMS
6985	4262	FMS
6995	4262 + HB4280	FMS

CROSS REFERENCE CHARTS - ROTATORS / ALARMS

Match Codes: F - FUNCTION MATCH M - MOUNTING MATCH S - SIZE MATCH

ROTATORS

Federal Signal

Model	Preco Product	Match
211900	5212	FMS
211902	5212	FM
211905	5212	MS
211906	5211 + MK5000	MS
415010	5211	FMS
415011	5211	MS
415510	5211	FM
440112	3920	FM
450112	5211	FMS
450114	5212	FMS
450142	5211 + MK5000	FMS
450144	5212 + MK5000	FMS
451112	5213	FMS
451114	5214	FMS
451412	5213 + MK5000	FMS
452112	5211	MS
452114	5212	MS
452642	5211 + MK5000	MS
452712	5213	MS
453112	5211	MS
453114	5212	MS
570142-02	5213 + MK5000	FMS
570142-04	5213 + MK5000	FMS

Star Lights

Model	Preco Product	Match
1166H	3920	MS
1166I	3920	MS
1169HM	3920	FM
9200H	5211, 5213	FMS
9200HM	5211, 5213 + MK5000	FMS
9200I	5211, 5213	MS
9200IM	5211, 5213 + MK5000	MS

Whelen

Model	Preco Product	Match
G1M	5213 + MK5000	FMS
G1P	5213	FMS
G2M	5213 + MK5000	MS
G2P	5213	MS
R2HDM	5213 + MK5000	FMS
R2HDP	5213	FMS

ECCO

Model	Preco Product	Match
5135X	5213	FMS
5135X-VM	5213 + MK5000	FMS
5315X	5211	FMS
5315X-MG	5211 + MK5000	MS
5315X-VM	5211 + MK5000	MS
5325X	5212	FMS

Match Codes: F - FUNCTION MATCH S - SIZE MATCH

ALARMS

Federal Signal

Model	Preco Product	Match
210100	ELT248	FS
210101	220, ELT278	FS
210111	ELT248	FS
210121	360, 360C, 370, 390	FS
210337	390	FS
210350	1020	FS
210358	ELT278	F
210361	ELT248	F
210502	390	FS
210504	1040, 1045	FS
210505	1048	FS

Star Lights

Model	Preco Product	Match
60-087	ELT278	F
60-097	ELT248	F
60-097DT	ELT248	F
60-102DT	250, 4050, 250C	F
60-707A	1028	F
60-802A	1020, 1048	F
60-802S	45AA	F
60-807A	1048	F
60-907S	370, 109, 6002, 3002	F
61-112	390	F
62-087	ELT278	F
62-097	ELT248	F
62-097DT	ELT248	F
62-102DT	250, 4050, 250C,	F
62-707A	1028	F
62-802A	1020, 1048	F
62-802S	45AA	F

Star Lights - cont.

Model	Preco Product	Match
62-807A	1048	F
62-907S	370, 109, 6002, 3002	F
63-000	1040	FS
63-097MV	ELT248	F

Whelen

Model	Preco Product	Match
WBUA107	270	FS
WBUA112	1040, 1059	FS
WBUA97	240, 240C, ELT248	FS
WBUAR97	4030	FS

continued on next page

CROSS REFERENCE CHARTS - ALARMS cont.

Match Codes: F - FUNCTION MATCH S - SIZE MATCH

ECCO		
Model	Preco Product	Match
210	LDA50	FS
410	4030	FS
510	230, 230LV	FS
520	240, 240C, 240CS	FS
530	250, 250C, FS250	FS
575	270, 3000	F
580	ELT278	FS
585	ELT278	FS

Model	Preco Product	Match
610	370, 3000	FS
630	270, 3000	FS
787	110, 6002	FS
830	45A, 3000	FS
850	380, 380C	FS
876	110, 6002	FS
415	4030	FS
435	4050	FS
767 REVO	112, 6002	FS
767 REVO	112, 6002	FS
820 REVO	45AA	FS
840 REVO	112, 6002	F
840 REVO	112	F

Model	Preco Product	Match
872 REVO	112, 6002	FS
872 REVO	112	FS
DF532	FS255	FS
DT500	DS232	FS
FH575	FH107	F
FH577	FH107	F
SA901	1048, 1059, 3000	FS
SA914	6010	FS
SA917	1040	FS
SA920	1060, 6010	FS
SA931	1048	FS
SA950	1020	FS
SA951	1028	FS

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Preco Product Warranty

Manufacturer warrants that on the Date of Purchase this Product will conform to Manufacturer's published specifications for the product, which are available from Manufacturer on request, and Manufacturer warrants that the product is free from defects in materials and workmanship. Except where specifically stated in the current Preco Safety Products catalog, this Limited Warranty extends for twenty-four (24) months - except light bulbs and flash tubes which are six (6) months, from the date of purchase. Manufacturer will, at its option, repair or replace any product found by Manufacturer to be defective and subject to this Limited Warranty.

This Limited Warranty does not apply to parts or products that are misused; abused; modified; damaged by accident, fire or other hazard; improperly installed or operated; or not maintained in accordance with the maintenance procedures set forth in Manufacturer's Installation and Operating Instructions.

To obtain warranty service, you must ship the product(s) to the specified Manufacturer location within thirty (30) days from expiration of the warranty period. To obtain warranty service you must call Preco Customer Service at 800-453-1141 or 208-323-1010, or fax your request to 208-323-7105. Customer Service will issue warranty authorization and further instructions. You must prepay shipping charges and use the original shipping container or equivalent.

EXCLUSION OF OTHER WARRANTIES: MANUFACTURER MAKES NO OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY. THE IMPLIED WARRANTIES FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED AND SHALL NOT APPLY TO THE PRODUCT. BUYER'S SOLE AND EXCLUSIVE REMEDY IN CONTRACT, TORT OR UNDER ANY OTHER THEORY AGAINST MANUFACTURER RESPECTING THE PRODUCT AND ITS USE SHALL BE THE REPLACEMENT OR REPAIR OF THE PRODUCT AS DESCRIBED ABOVE.

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