

VEHICLE-MOUNTED EMERGENCY SCENE LIGHTING

Versatile high intensity lighting

- Configurable to your vehicle needs
- Custom line of telescoping pole mounts
- Tripods available
- Thru-body mounts, remote mounts, offset side mounts and recessed body mounts



Silver Billet™ Tripod on Ambulance (KR-SB-831)



Photo courtesy of LDV, Inc., Burlington, WI

Remote Head Telescoping Pole Mounts

- Unlimited lighting solutions are available for all types of vehicles
- For years we have been a vendor of choice for fire departments across the country and now our proven lighting solutions are used extensively by law enforcement as well
- For homeland security, disaster management, and crime scenes, our high intensity lighting can be configured for any vehicle – whether new or retrofit



Bottom & Top Raise Telescoping Pole Mounts



Light Heads for Tower Mounting Applications



Tripod Truck Mount

ADDITIONAL MOUNTING APPLICATIONS:

- Offset Side Mounts
- Aerial & Platform Mounts
- Recessed Body Mounts
- Remote-Head Mounts
- Thru-Body Pole Mounts
- Portable/Demountable Mounts

FOR MORE VEHICLE APPLICATIONS & MOUNTING ACCESSORIES,
CONTACT 1-800-524-9900 OR VISIT WWW.HAVIS.COM





By: Havis-Shields

LIGHTING PRODUCTS

When you need high-intensity vehicle auxiliary lighting, Havis-Shields' Kwik-Raze and Collins Dynamics divisions manufacture the largest selection of fixtures, mounting brackets, and bases. Telescoping, fixed-mounted, handheld, or portable / rechargeable fixtures and spot, flood, or combination spot/flood beam patterns are all available for your vehicles.

	Inner Pole Length (inches)	Outer Pole Length	Flush Mount (1 1/2" offset)	Side Mount (2", 4", or 7" offset)	Thru-Body Mount	Portable/Tripod Mount	Top Raising Mount	Bottom Raising Mount	Non-Telescoping Mount	S (on/off switch)	DM (portable/ dismountable)	I (indicator switch)	CW (concealed wire)	XL (extra length)	OSB-1 (offset brackets)	HD (Kwik-Release hold down assembly)	TM-SB (Kwik-Release tripod truck mount 4.5")	SB-TM-7 (Kwik-Release tripod truck mount 7")	Magnafire 3000® 12V HID and Quartz Halogen	FX Series (spot)	Stonco	Dual Fixtures
Mount	Length		Mounting			Style				Available Options									Available Lightheads			
SB-100	48	58	X				X			O	O	O	S	O	-	-	-	-	X	X	X	X
SB-200	48	58		X			X			O	O	O	S	O	-	-	-	-	X	X	X	X
SB-300	48	58			X		X			O	O	O	S	O	-	-	-	-	X	X	X	X
SB-400	48	12			X			X		O	O	O	S*	O	-	-	-	-	X	X	X	X
SB-500	67.5	24		X				X		O	O	O	S*	O	-	-	-	-	X	X	X	X
SB-600	-	-			X				X	O	-	-	S	-	-	-	-	-	X	X	X	X
700	-	-				X				S	-	-	-	-	-	O	-	-	X	-	X	-
SB-800	40	50				X	X			S	O	O	S	O	-	-	O	O	X	X	X	X
SB-800-SL	28	38				X	X			S	O		S	O	-	-	O	O	X	X	X	X
900	-	48			X		X			O	-	O	S	-	O	-	-	-	X	X	X	-
SB-1100	67.5	24		X				X		-	-	O	-	O	-	-	-	-	X	-	-	-
SB-1200	48	12			X			X		-	-	O	-	O	-	-	-	-	X	-	-	-
1300	-	-			X				X	O	-	-	S	-	-	-	-	-	X	-	X	-
1400	-	-							X	O	-	-	-	-	-	-	-	-	X	-	-	-

S= Standard, O= Optional

* Please Note: Concealed wires are optional with Stonco® Fixtures and standard on all others

Please see page L17 for recessed mounts available lightheads and options

Lighthead Beam Patterns		
Spot	Flood	Spot/Flood Combo
Kwik-Strike 4000	Kwik-Strike 4000	
Questar		
Knight Star		
FX	FX	FX
	Magnafire	
	Stonco	

Contact us at:

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How to Configure Kwik-Raze Part Numbers

A) Select Pole/Mount + **B) Select Light Head** + **C) Select Options*** = **Configured Kwik-Raze part number**

Pole, Portable and Fixed	Description
KR-SB-100	Side mount Top raise
KR-SB-200-W_	Side mount Top raise (add 2", 4", 7" offset)
KR-SB-300	Thru body mount Top raise
KR-SB-400	Thru body mount Bottom raise
KR-SB-500-W_	Side mount Bottom raise (add 2", 4", 7" offset)
KR-SB-600	Top mount Fixed
KR-700	Portable
KR-SB-800	Tripod (add "-SL" for short length)
KR-900	Thru Body mount Top raise, economy
KR-SB-1100	Bottom raise 4" offset side mount
KR-SB-1200	Bottom raise Thru body mount
KR-SB-1300	Top mount, fixed
KR-1400	Aerial mount

Magnafire 3000 Series	
31	70W, 12VDC, HID
31-24	70W, 24VDC, HID
32	150W, 12VDC, HID
32-24	150W, 24VDC, HID
33	350W, 120VAC, HAL
36	750W, 120VAC, HAL
37	750W, 220VAC, HAL
39	900W, 240VAC, HL IR
Stonco Series (Economy)	
05	500W, 120VAC, HAL
10	1000W, 240VAC, HAL
15	1500W, 240VAC
Collins Dynamics FX Series	
06	100W, 12VDC, FLOOD
09	100W, 12VDC, SPOT/FLOOD
12	100W, 12VDC, SPOT/FLOOD

Configured Options*	
-S	On/Off switch (standard on 700, 800, and 800-SL)
-I	"Light raised" indicator switch
-I-S	Both options above (On/Off and Indicator Switch)
-2	Dual fixtures on top of pole
-DM	Portable/ Demountable system on top of pole
-TM	Truck Mount Kit (800 Series tripod only)
-HD	Hold Down System (700 series portable only)
-CW	Concealed wire 400/500 series (Stonco only)

Example #1:

A) Select Pole/Mount

KR-SB-300
Pole

+

B) Select Light Head

36
Light

+

C) Select Options*

-S
Option(s)

= KR-SB-336-S

Thru Body Mount, Top
Raise with 750W, 120VAC,
HAL Lighthouse and On/Off
Switch

Example #2:

A) Select Pole/Mount

KR-SB-500-W4
Pole

+

B) Select Light Head

31
Light

+

C) Select Options*

-I
Option(s)

= KR-SB-531-W4-I

Side Mount, Bottom
Raise with 4" offset; 70W,
12VDC, HID Lighthouse and
Indicator Switch

See pages L4-L7 for configured part numbers

See page L14-L15 for Special Pole Lengths.

* Some of these options are not available for all poles/mounts. See chart to the left for available options.

Contact us at:

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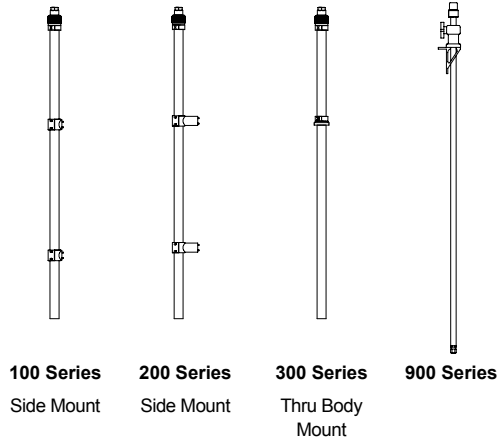
Web: www.havis.com

		12 Volt HID				Quartz Halogen			
		 KR-31 70W, 12 VDC	 KR-32 150W, 12VDC*	 KR-31-2 Dual 70W, 12VDC	 KR-31DM (70W Portable/ Demountable)	 KR-33 350W, 120 VAC	 KR-36 750W, 120 VAC	 KR-37 750W, 240 VAC	 KR-39 900W, 240 VAC
Pole/Mount	Page	Page L8	Page L8	Page L11	Page L8	Page L8	Page L8	Page L8	Page L8
Top Raise Pole									
SB-100 Flush Mount (1-1/2" Offset)	L16	KR-SB-131	KR-SB-132	KR-SB-131-2	KR-SB-131DM	KR-SB-133	KR-SB-136	KR-SB-137	KR-SB-139
SB-200-W2 2" Offset	L16	KR-SB-231-W2	KR-SB-232-W2	KR-SB-231-2-W2	KR-SB-231DM-W2	KR-SB-233-W2	KR-SB-236-W2	KR-SB-237-W2	KR-SB-239-W2
SB-200-W4 4" Offset	L16	KR-SB-231-W4	KR-SB-232-W4	KR-SB-231-2-W4	KR-SB-231DM-W4	KR-SB-233-W4	KR-SB-236-W4	KR-SB-237-W4	KR-SB-239-W4
SB-200-W7 7" Offset	L16	KR-SB-231-W7	KR-SB-232-W7	KR-SB-231-2-W7	KR-SB-231DM-W7	KR-SB-233-W7	KR-SB-236-W7	KR-SB-237-W7	KR-SB-239-W7
SB-300 Thru body	L16	KR-SB-331	KR-SB-332	KR-SB-331-2	KR-SB-331DM	KR-SB-333	KR-SB-336	KR-SB-337	KR-SB-339
900 Thru body	L16	KR-931	KR-932	N/A	N/A	KR-933	KR-936	KR-937	KR-939
Bottom Raising Pole									
SB-400 Thru body	L17	KR-SB-431	KR-SB-432	KR-SB-431-2	KR-SB-431DM	KR-SB-433	KR-SB-436	KR-SB-437	KR-SB-439
SB-500-W2 2" Offset	L17	KR-SB-531-W2	KR-SB-532-W2	KR-SB-531-2-W2	KR-SB-531DM-W2	KR-SB-533-W2	KR-SB-536-W2	KR-SB-537-W2	KR-SB-539-W2
SB-500-W4 4" Offset	L17	KR-SB-531-W4	KR-SB-532-W4	KR-SB-531-2-W4	KR-SB-531DM-W4	KR-SB-533-W4	KR-SB-536-W4	KR-SB-537-W4	KR-SB-539-W4
SB-500-W7 7" Offset	L17	KR-SB-531-W7	KR-SB-532-W7	KR-SB-531-2-W7	KR-SB-531DM-W7	KR-SB-533-W7	KR-SB-536-W7	KR-SB-537-W7	KR-SB-539-W7
Non-Telescoping Mount									
SB-600 Series	L20	KR-SB-631	KR-SB-632	KR-SB-631-2	N/A	KR-SB-633	KR-SB-636	KR-SB-637	KR-SB-639
1300 Series	L20	KR-1331	KR-1332	N/A	N/A	KR-1333	KR-1336	KR-1337	KR-1339
1400 Series	L20	KR-1431	KR-1432	N/A	N/A	KR-1433	KR-1436	KR-1437	KR-1439
Portable Tripod									
700 Series	L18	KR-731	KR-732	N/A	N/A	KR-733	KR-736	KR-737	KR-739
SB-800 Series	L18	KR-SB-831	KR-SB-832	KR-SB-831-2	KR-SB-831DM	KR-SB-833	KR-SB-836	KR-SB-837	KR-SB-839
SB-800 Series Short Length	L18	KR-SB-831-SL	KR-SB-832-SL	KR-SB-831-2-SL	KR-SB-831DM-SL	KR-SB-833-SL	KR-SB-836-SL	KR-SB-837-SL	KR-SB-839-SL
Remote Bottom Raising									
SB-1100 4" Offset	L17	KR-SB-1131	KR-SB-1132	N/A	N/A	KR-SB-1133	KR-SB-1136	KR-SB-1137	KR-SB-1139
SB-1100 7" Offset	L17	KR-SB-1131-W7	KR-SB-1132-W7	N/A	N/A	KR-SB-1133-W7	KR-SB-1136-W7	KR-SB-1137-W7	KR-SB-1139-W7
SB-1200 Thru-body	L17	KR-SB-1231	KR-SB-1232	N/A	N/A	KR-SB-1233	KR-SB-1236	KR-SB-1237	KR-SB-1239

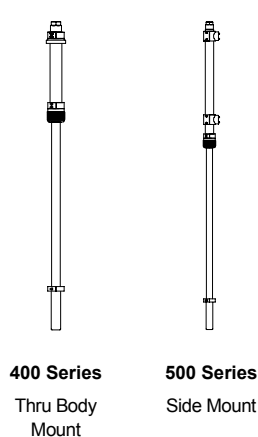
*Also available in 24 Volt- use part number KR-32-24

Top Raising

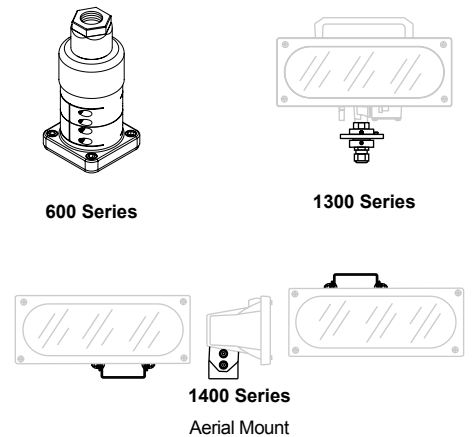
L4

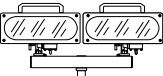
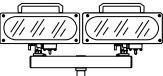
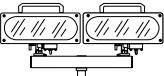
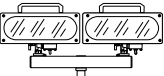







Bottom Raising



Non-Telescoping



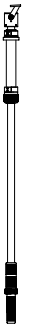
Quartz Halogen Dual Heads				Quartz Halogen Portable Demountables			
 KR-33-2 Dual 350 Watt 12 VAC	 KR-36-2 Dual 750 Watt 120 VAC	 KR-37-2 Dual 750 Watt 240 VAC	 KR-39-2 Dual 900 Watt 240 VAC	 KR-33DM 350 Watt 120 VAC	 KR-36DM 750 Watt 120 VAC	 KR-37DM 750 Watt 240 VAC	 KR-39DM 900 Watt 240 VAC
Page L9	Page L9	Page L9	Page L9	Page L8	Page L8	Page L8	Page L8
KR-SB-133-2	KR-SB-136-2	KR-SB-137-2	KR-SB-139-2	KR-SB-133DM	KR-SB-136DM	KR-SB-137DM	KR-SB-139DM
KR-SB-233-2-W2	KR-SB-236-2-W2	KR-SB-237-2-W2	KR-SB-239-2-W2	KR-SB-233DM-W2	KR-SB-236DM-W2	KR-SB-237DM-W2	KR-SB-239DM-W2
KR-SB-233-2-W4	KR-SB-236-2-W4	KR-SB-237-2-W4	KR-SB-239-2-W4	KR-SB-233DM-W4	KR-SB-236DM-W4	KR-SB-237DM-W4	KR-SB-239DM-W4
KR-SB-233-2-W7	KR-SB-236-2-W7	KR-SB-237-2-W7	KR-SB-239-2-W7	KR-SB-233DM-W7	KR-SB-236DM-W7	KR-SB-237DM-W7	KR-SB-239DM-W7
KR-SB-333-2	KR-SB-336-2	KR-SB-337-2	KR-SB-339-2	KR-SB-333DM	KR-SB-336DM	KR-SB-337DM	KR-SB-339DM
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
KR-SB-433-2	KR-SB-436-2	KR-SB-437-2	KR-SB-439-2	KR-SB-433DM	KR-SB-436DM	KR-SB-437DM	KR-SB-439DM
KR-SB-533-2-W2	KR-SB-536-2-W2	KR-SB-537-2-W2	KR-SB-539-2-W2	KR-SB-533DM-W2	KR-SB-536DM-W2	KR-SB-537DM-W2	KR-SB-539DM-W2
KR-SB-533-2-W4	KR-SB-536-2-W4	KR-SB-537-2-W4	KR-SB-539-2-W4	KR-SB-533DM-W4	KR-SB-536DM-W4	KR-SB-537DM-W4	KR-SB-539DM-W4
KR-SB-533-2-W7	KR-SB-536-2-W7	KR-SB-537-2-W7	KR-SB-539-2-W7	KR-SB-533DM-W7	KR-SB-536DM-W7	KR-SB-537DM-W7	KR-SB-539DM-W7
KR-SB-633-2	KR-SB-636-2	KR-SB-637-2	KR-SB-639-2	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
KR-SB-833-2	KR-SB-836-2	KR-SB-837-2	KR-SB-839-2	KR-SB-833DM	KR-SB-836DM	KR-SB-837DM	KR-SB-839DM
KR-SB-833-2-SL	KR-SB-836-2-SL	KR-SB-837-2-SL	KR-SB-839-2-SL	KR-SB-833DM-SL	KR-SB-836DM-SL	KR-SB-837DM-SL	KR-SB-839DM-SL
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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Remote Bottom Raise

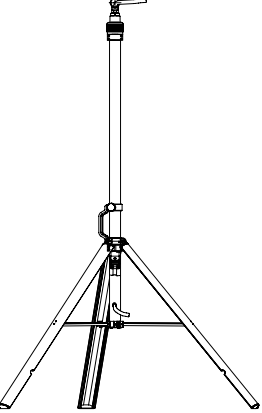
1100 Series

Side Mount



1200 Series

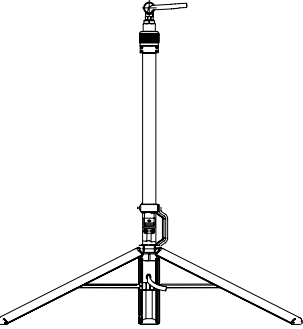
Thru Body Mount



Top-Raise Tripod

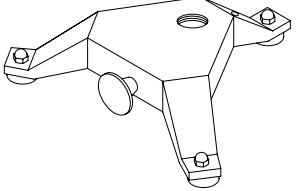
800 Series

Tripod



800-SL Series


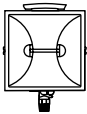
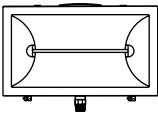
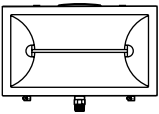
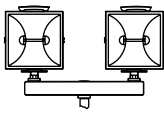

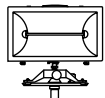
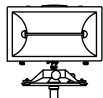
Short Length Tripod



Portable

700 Series

L5

		Single Fixtures			Dual Fixtures	Portable Demountables		
		 KR-05 500 Watt 120 VAC	 KR-10 1000 Watt 240 VAC	 KR-15 1500 Watt 240 VAC	 KR-05-2 Dual 500 Watt 120 VAC	 KR-05DM 500 Watt	 KR-10DM 1000 Watt	 KR-15DM 1500 Watt
Pole/Mount	Page	Page L10	Page L10	Page L10	Page L10	Page L10	Page L10	Page L10
Top Raise Pole								
SB-100 Flush Mount (1-1/2" Offset)	L16	KR-SB-105	KR-SB-110	KR-SB-115	KR-SB-105-2	KR-SB-105DM	KR-SB-110DM	KR-SB-115DM
SB-200-W2 2" Offset	L16	KR-SB-205-W2	KR-SB-210-W2	KR-SB-215-W2	KR-SB-205-2-W2	KR-SB-205DM-W2	KR-SB-210DM-W2	KR-SB-215DM-W2
SB-200-W4 4" Offset	L16	KR-SB-205-W4	KR-SB-210-W4	KR-SB-215-W4	KR-SB-205-2-W4	KR-SB-205DM-W4	KR-SB-210DM-W4	KR-SB-215DM-W4
SB-200-W7 7" Offset	L16	KR-SB-205-W7	KR-SB-210-W7	KR-SB-215-W7	KR-SB-205-2-W7	KR-SB-205DM-W7	KR-SB-210DM-W7	KR-SB-215DM-W7
SB-300 Thru body	L16	KR-SB-305	KR-SB-310	KR-SB-315	KR-SB-305-2	KR-SB-305DM	KR-SB-310DM	KR-SB-315DM
900 Thru body	L16	KR-905	KR-910	KR-915	N/A	N/A	N/A	N/A
Bottom Raising Pole								
SB-400 Thru body	L17	KR-SB-405	KR-SB-410	KR-SB-415	KR-SB-405-2	KR-SB-405DM	KR-SB-410DM	KR-SB-415DM
SB-500-W2 2" Offset	L17	KR-SB-505-W2	KR-SB-510-W2	KR-SB-515-W2	KR-SB-505-2-W2	KR-SB-505DM-W2	KR-SB-510DM-W2	KR-SB-515DM-W2
SB-500-W4 4" Offset	L17	KR-SB-505-W4	KR-SB-510-W4	KR-SB-515-W4	KR-SB-505-2-W4	KR-SB-505DM-W4	KR-SB-510DM-W4	KR-SB-515DM-W4
SB-500-W7 7" Offset	L17	KR-SB-505-W7	KR-SB-510-W7	KR-SB-515-W7	KR-SB-505-2-W7	KR-SB-505DM-W7	KR-SB-510DM-W7	KR-SB-515DM-W7
Non-Telescoping Mount								
SB-600 Series	L20	KR-SB-605	KR-SB-610	KR-SB-615	N/A	N/A	N/A	N/A
1300 Series	L20	KR-1305	KR-1310	KR-1315	N/A	N/A	N/A	N/A
1400 Series	L20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Portable Tripod								
700 Series	L18	KR-705	KR-710	KR-715	N/A	N/A	N/A	N/A
SB-800 Series	L18	KR-SB-805	KR-SB-810	KR-SB-815	KR-SB-805-2	KR-SB-805DM	KR-SB-810DM	KR-SB-815DM
SB-800 Series Short Length	L18	KR-SB-805-SL	KR-SB-810-SL	KR-SB-815-SL	KR-SB-805-2-SL	KR-SB-805DM-SL	KR-SB-810DM-SL	KR-SB-815DM-2
Remote Bottom Raising								
SB-1100 4" Offset	L17	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-1100 7" Offset	L17	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-1200 Thru-body	L17	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Top Raising



100 Series
Side Mount



200 Series
Side Mount



300 Series
Thru Body
Mount



900 Series

Bottom Raising

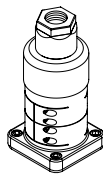


400 Series
Thru Body
Mount

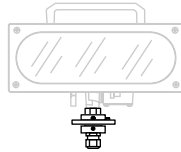


500 Series
Side Mount

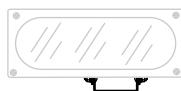
Non-Telescoping



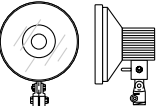
600 Series



1300 Series



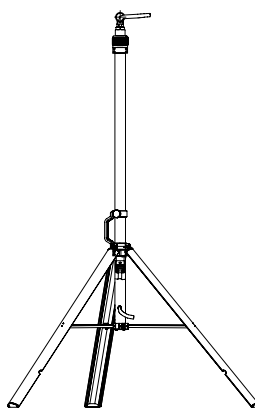
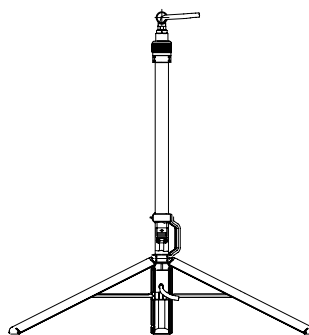
1400 Series
Aerial Mount

		Single Fixtures			Dual Fixtures		
		 CD-FX-06 12 VDC	 CD-FX-09 12 VDC	 CD-FX-12 12 VDC	 KR-FX-06-2	 KR-FX-09-2	 KR-FX-12-2
Pole/Mount	Page	Page L11	Page L11	Page L11	Page L11	Page L11	Page L11
Top Raise Pole							
SB-100 Flush Mount (1-1/2" Offset)	L16	KR-SB-106	KR-SB-109	KR-SB-112	KR-SB-106-2	KR-SB-109-2	KR-SB-112-2
SB-200-W2 2" Offset	L16	KR-SB-206-W2	KR-SB-209-W2	KR-SB-212-W2	KR-SB-206-2-W2	KR-SB-209-2-W2	KR-SB-212-2-W2
SB-200-W4 4" Offset	L16	KR-SB-206-W4	KR-SB-209-W4	KR-SB-212-W4	KR-SB-206-2-W4	KR-SB-209-2-W4	KR-SB-212-2-W4
SB-200-W7 7" Offset	L16	KR-SB-206-W7	KR-SB-209-W7	KR-SB-212-W7	KR-SB-206-2-W7	KR-SB-209-2-W7	KR-SB-212-2-W7
SB-300 Thru body	L16	KR-SB-306	KR-SB-309	KR-SB-312	KR-SB-306-2	KR-SB-309-2	KR-SB-312-2
900 Thru body	L16	CD-TP-I CD-KS-I-6	CD-TP-I CD-KS-I-9	CD-TP-I CD-KS-I	CD-TP-I CD-KS-II-6	CD-TP-I CD-KS-II-9	CD-TP-1 CD-KS-II
Bottom Raising Pole							
SB-400 Thru body	L17	KR-SB-406	KR-SB-409	KR-SB-412	KR-SB-406-2	KR-SB-409-2	KR-SB-412-2
SB-500-W2 2" Offset	L17	KR-SB-506-W2	KR-SB-509-W2	KR-SB-512-W2	KR-SB-506-2-W2	KR-SB-509-2-W2	KR-SB-512-2-W2
SB-500-W4 4" Offset	L17	KR-SB-506-W4	KR-SB-509-W4	KR-SB-512-W4	KR-SB-506-2-W4	KR-SB-509-2-W4	KR-SB-512-2-W4
SB-500-W7 7" Offset	L17	KR-SB-506-W7	KR-SB-509-W7	KR-SB-512-W7	KR-SB-506-2-W7	KR-SB-509-2-W7	KR-SB-512-2-W7
Non-Telescoping Mount							
SB-600 Series	L20	KR-SB-606	KR-SB-609	KR-SB-612	N/A	N/A	N/A
1300 Series	L20	N/A	N/A	N/A	N/A	N/A	N/A
1400 Series	L20	N/A	N/A	N/A	N/A	N/A	N/A
Portable Tripod							
700 Series	L18	N/A	N/A	N/A	N/A	N/A	N/A
SB-800 Series	L18	KR-SB-806	KR-SB-809	KR-SB-812	KR-SB-806-2	KR-SB-809-2	KR-SB-812-2
SB-800 Series Short Length	L18	KR-SB-806-SL	KR-SB-809-SL	KR-SB-812-SL	KR-SB-806-2-SL	KR-SB-809-2-SL	KR-SB-812-2-SL
Remote Bottom Raising							
SB-1100 4" Offset	L17	N/A	N/A	N/A	N/A	N/A	N/A
SB-1100 7" Offset	L17	N/A	N/A	N/A	N/A	N/A	N/A
SB-1200 Thru-body	L17	N/A	N/A	N/A	N/A	N/A	N/A

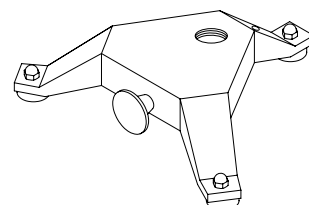
Remote Bottom Raise

1100 Series
Side Mount1200 Series
Thru Body
Mount

Top-Raise Tripod

800 Series
Tripod800-SL Series
Short Length Tripod

Portable



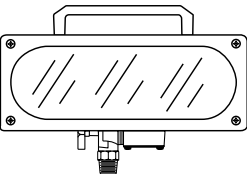
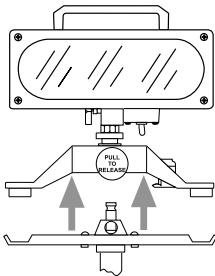
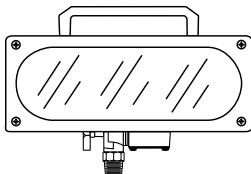
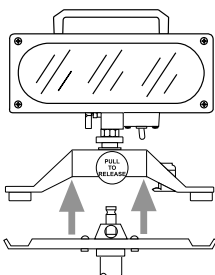
700 Series



By: Havis-Shields

KWIK-RAZE® MAGNAFIRE 3000®

Magnafire 3000 lights are ideal for emergency and tactical response, command centers, traffic investigations and DWI enforcement, crime scene lighting, and much more!

Part Number		Wattage	Rating	Drawn	Bulb Life	
KR-31, KR-31-24, KR-32, KR-32-24						
	2nd Generation 12/24 Volt H.I.D.	KR-31	70 watts	6000	6 amps @ 12V	10,000 hrs
	<ul style="list-style-type: none">12VDC light fixtureMetal halide H.I.D. bulb13.5" W x 5.31" H x 4.88" D8.75" H from swivel to top of handleIncludes 3/4" NPT swivel knuckleFixture only part #: KR-31, KR-31-24, KR-32, or KR-32-248 lbs.	KR-31-24 (24 Volt HID)	70 watts	6000	3 amps @ 24V	10,000 hrs
		KR-32	150 watts	11,250	13 amps @ 12VDC	10,000 hrs
		KR-32-24 (24 Volt HID)	150 watts	11,250	7 amps @ 24VDC	10,000 hrs
KR-SB-__31DM*						
	Portable Demountable 12 Volt H.I.D.		70 watts	6000	6 amps @ 12VDC	10,000 hrs
	<ul style="list-style-type: none">Portable Demountable model allows fixture to be removed from pole with a 700 Series portable light.H.I.D. 70 watt, 12VDC light fixtureHold-down assembly fastens light to permanently mounted baseplate.Can be mounted on any telescoping poles (SB-100-500 and SB-800 series), (Not available on the SB-600 or 900 Series)On/ off switch standardOrder plugs separately (page L12)					
KR-33, KR-36, KR-37, KR-39						
	Quartz Halogen Lights	KR-33	350 watts	13,250	3 amps @ 120V	400 hrs
	<ul style="list-style-type: none">Standard with a diffused reflector that is easily removable13.5" W x 5.31" H x 4.88" D8.75" H from swivel to top of handleIncludes 3/4" swivel knuckleFixture only part #: KR-33, KR-36, KR-37, KR-396 lbs.	KR-36	750 watts	25,200	6.25 amps @ 120V	400 hrs
		KR-37	750 watts	19,200	3.5 amps @ 220V	1500 hrs
		KR-39	900 watts	32,000	4.2 amps @ 240V	2000 hrs
KR-SB-__33DM*, KR-SB-__36DM*, KR-SB-__37DM*, KR-SB-__39DM*						
	Portable Demountable	KR-33DM	350 watts	13,250	3 amps @ 120V	400 hrs
	<ul style="list-style-type: none">Portable Demountable model allows fixture to be removed from pole with a 700 Series portable light.Quartz halogen light fixtureHold-down assembly fastens light to permanently mounted baseplate.Can be mounted on any telescoping poles (SB-100-500, and SB-800 series - Not available on the SB-600 or 900 Series)On/ off switch standard.Order plugs separately (page L12)	KR-36DM	750 watts	25,200	6.25 amps @ 120V	400 hrs
		KR-37DM	750 watts	19,200	3.5 amps @ 220V	1500 hrs
		KR-39DM	900 watts	32,000	4.2 amps @ 240V	2000 hrs
*Demountables must be ordered with new poles and are not to be field retrofitted.						

*Demountables must be ordered with new poles and are not to be field retrofitted.

Contact us at:

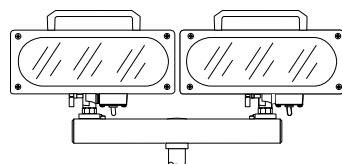
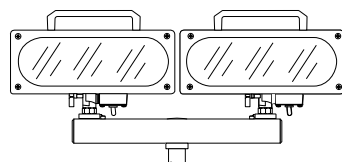
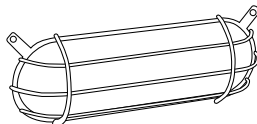

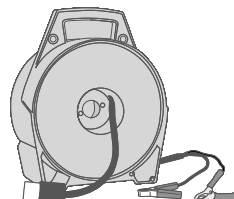


Ph: 800.524.9900 or 215.957.0720

E-mail: sales@havis.com

Fax: 215.957.0729

Web: www.havis.com



Magnafire 3000 lights are ideal for emergency and tactical response, command centers, traffic investigations and DWI enforcement, crime scene lighting, and much more!						
Part Number		Wattage	Bulb Lumen Rating	Amps Drawn	Bulb Life	
KR-__-31-2*		NOTE: Specs are per fixture!				
	2nd Generation 12 Volt H.I.D. <ul style="list-style-type: none">Dual 70 watt 12VDC light fixturesMetal halide H.I.D. bulb28.06" W x 11.50" H x 4.88" DOn/Off switches standardPlease note that wattage, lumens, and amp draw all double when specing vehicle.	70 watts	6000	6 amps @ 12V	6000 hrs	
KR-__-33-2*, KR-__36-2*, KR-__37-2*, KR-__39-2*		NOTE: Specs are per fixture!				
	Quartz Halogen Lights					
	<ul style="list-style-type: none">Dual quartz halogen light fixtureStandard with a diffused reflector that is easily removable28.06" W x 11.50" H x 4.88" D8.75" H from swivel to top of handleOn/Off switches standardPlease note that wattage, lumens, and amp draw all double when specing vehicle.	KR-33-2	350 watts	13,250	3 amps @ 120V	400 hrs
		KR-36-2	750 watts	25,200	6.25 amps @ 120V	400 hrs
		KR-37-2	750 watts	19,200	3.5 amps @ 220V	400 hrs
		KR-39-2	900 watts	20,600	4.2 amps @ 240V	2000 hrs
* KR-XX-2 lights must be ordered with new poles and are not to be field retrofitted.						
MAGNAFIRE 3000® OPTIONS						
KR-GG-3000 (additional options can be found on p. L14)						
	Optional Grille Guard For All Magnafire 3000® Light Fixtures <ul style="list-style-type: none">Manufactured from .16" diameter stainless steel wire with an electro-polished finish4.3" H x 12.5" W x 1.8" DGrille Guards are installed to Magnafire frame via 2 clips at the bottom that slide into the frame, and 2 tabs at the top of the grille guard that are secured with the existing screws onto the frame.					
KR-EC-050						
	Optional 12 Volt Extension Cord For Magnafire Model 31 H.I.D. Portable Demountable Light <ul style="list-style-type: none">50 ft. of 12/2 SJO cable with connector on one end and battery clamps on the other end.Includes bright yellow, high-impact polystyrene reel					
RM265119						
16/2 TPR 9 ft. coil cord with #20 Lighter Plug <ul style="list-style-type: none">For use on H.I.D. 70 watt, 12 VDC light fixturesStandard with KR-731, KR-732, KR-831, and KR-832						

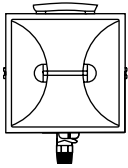
Contact us at:

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E-mail: sales@havis.com

Fax: 215.957.0729
Web: www.havis.com



By: Havis-Shields

KWIK-RAZE®: STONCO**STONCO SERIES LIGHT HEADS****Part Number****Wattage****Bulb
Lumen
Rating****Amps
Drawn****Bulb Life****KR-05****Quartz Halogen Light**

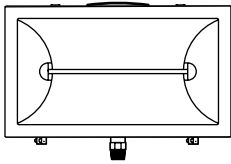
- 500 watt fixture, 120 VAC
- T-3 quartz halogen bulb
- Includes 3/4" swivel knuckle and handle standard
- 10.75" H from swivel to top of handle x 8.25" W x 5.5" D
- Available in 220 volts, 2.3 amps if specified
- On/Off switch optional, see page L12
- Fixture only part #: KR-1-2AC

500 watts

10,500

4.5 amps @
120V

2000 hrs

KR-10, KR-15**Quartz Halogen Light**

- 1000 or 1500 watt fixture, 220 VAC
- T-3 quartz halogen bulb
- Includes 3/4" swivel knuckle and handle standard
- 10.75" H from swivel to top of handle x 16.5" W x 5.5" D
- On/Off switch optional, see page L12
- Fixture only part #: KR-1-2BC10 or KR-1-2BC15

KR-10

1000 watts

21,500

4.5 amps @
220V

2000 hrs

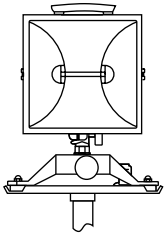
KR-15

1500 watts

35,800

6.5 amps @
220V

2000 hrs

KR-SB-__05DM*

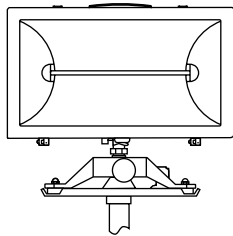
- 500 watt light fixture, 120 VAC
- Portable Demountable allows fixture to be removed from pole with a 700 Series portable light
- Hold down assembly fastens light to permanently mounted baseplate
- Can be mounted on any of the telescoping poles (SB-100-500 and SB-800 series- Not available on the SB-600 or 900 series)
- On/ off switch standard
- Order plugs separately, see page L12

500 watts

10,500

4.5 amps @
120V

2000 hrs

KR-SB-__10DM*, KR-SB-__15DM*

- 1000 or 1500 watt light fixture, 220 VAC
- Portable Demountable allows fixture to be removed from pole with a 700 Series portable light
- Hold down assembly fastens light to permanently mounted baseplate
- Can be mounted on any of the telescoping poles (SB-100-500 and SB-800 series- Not available on the SB-600 or 900 series)
- On/ off switch standard
- Order plugs separately, see page L12

KR-10DM

1000 watts

21,500

4.5 amps @
220V

2000 hrs

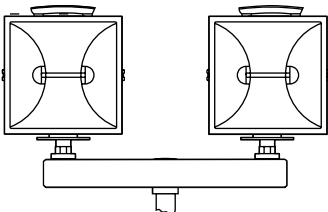
KR-15DM

1500 watts

35,800

6.5 amps @
220V

2000 hrs

KR-__-05-2***NOTE: Specs are per fixture!**

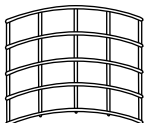
- Dual 500 watt fixtures, 120 VAC
- Specify -2 for dual mounting
- 13.5" H x 23" W x 5.5" D
- Available in 220 volts, 2.3 amps
- On/ off switch standard
- Please note that wattage, lumens & amp draw all double when spec'ing vehicle
- Fixture only part #: KR-1-2AC (single lighthead)

500 watts

10,500

4.5 amps @
120V

2000 hrs

Demountable and KR-XX-2 (dual) lights must be ordered with new poles and are not to be field retrofitted*KR-GG05****STONCO OPTIONS (additional options can be found on p L12)****Optional Grille Guard For Stonco 500 Watt light fixture model KR-05 with clips**

Contact us at:

Ph: 800.524.9900 or 215.957.0720

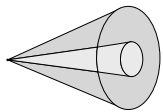
E-mail: sales@havis.com

Fax: 215.957.0729

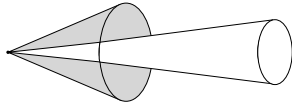
Web: www.havis.com



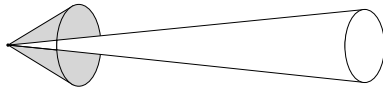
FX SERIES LIGHT HEADS



FX-6 beam pattern
300,000 cp spot, 125,000 cp flood



FX-9 beam pattern
500,000 cp spot, 50,000 cp flood



FX-12 beam pattern
750,000 cp spot, 5,000 cp flood

FX-6 Enhanced flood light

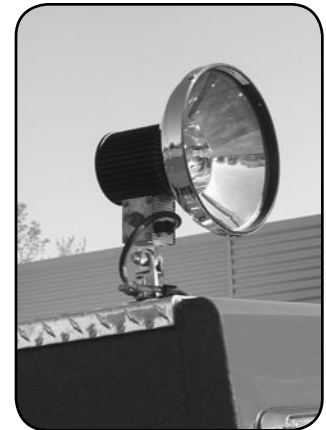
- Enhanced flood pattern decklight with 7" single stage 40° reflector. Uses 100 watt H-1 bulb. Draws 7.8 amps.

FX-9 Selectable spot/ flood light

- Select spot or flood pattern with 7" dual stage reflector. Uses two 100 watt H-2 bulbs. Draws 7.8 amps on spot or flood.

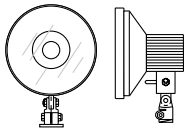
FX-12 Selectable spot/ flood light

- Select spot or flood pattern with 7" dual stage reflector. Uses 100 watt H-2 spot and 55 watt H-2 flood bulbs. Draws 7.8 amps on spot, 4.2 on flood.



Part Number

CD-FX-6



- 100 watt H-1 bulb
- Single stage reflectors provide halogen spot, flood and enhanced flood beam patterns
- Black anodized aluminum with chrome plated reflector housing
- On/ off switch standard
- All models are standard 12 volt and, if specified available with 24 volts

Wattage

100 watts

Bulb Lumen Rating

2,800

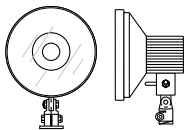
Amps Drawn

7.8 amps @
12VDC

Bulb Life

150 hrs

CD-FX-9, CD-FX-12



- 100 watt H-2 bulb
- Single and dual stage reflectors provide halogen spot, flood and enhanced flood beam patterns
- Black anodized aluminum with chrome plated reflector housing
- On/ off switch standard
- All models are standard 12 volt and, if specified available with 24 volts

CD-FX-9

100 watt
spot/flood

3,000

7.8 amps @
12VDC

100 hrs

CD-FX-12

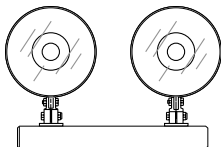
100 watts
spot/
55W flood

3,000

7.8 amps @
12VDC

100 hrs

KR-__FX-6-2*, KR-__FX-9-2*, KR-__FX-12-2*



- Dual 12VDC light fixtures, see models that are offered
- On/ off switches standard
- Please note that wattage, lumens and amp draw all double when speccing vehicle.

CD-FX-6-2

100 watts

2,800

7.8 amps @
12V each

150 hrs

CD-FX-9-2

100 watt
spot/flood

3,000

7.8 amps @
12V each

100 hrs

CD-FX-12-2

100 watt
spot/
55W flood

3,000

7.8 amps @
12V each

100 hrs

* KR-XX-2 lights must be ordered with new poles and are not to be field retrofitted.

Contact us at:

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Kwik-Raze® Lightheads

Kwik-Raze® Poles and Mounts

Kwik-Strike™ 4000 Light

Collins Dynamics® Lights



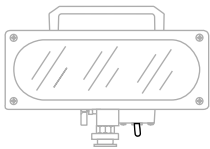
By: Havis-Shields

KWIK-RAZE®**KWIK-RAZE® OPTIONS AND ACCESSORIES****Part Number****KR-I-SB, KR-IB-SB, KR-I8, KR-I9****"Up" Indicator switch**

- Indicates the pole is in raised position (top or bottom raise poles, 800 series tripod, or 900 Series poles)
- Mounting brackets accept indicator switch
- Top Raise Poles: Add an "I" after configured model number for this option
- Bottom Raise Poles: Add an "IB" after configured model number for this option
- KR-SB-800 Series: Add an "I8" after configured model number for this option
- KR-900 Series: Add an "I9" after configured model number for this option

KR-IC-SB**Silver Billet Up Indicator Switch Collar****KR-I8-OT****Silver Billet KR-SB-800 Series "Off Truck" Indicator Switch Option**

- Allows the driver to be notified by an indicator light if the KR-SB-800 series tripod has not been returned to the truck or if it has not been properly seated in it's truck mount.

KR-S**On/Off Switch**

- On/off toggle switch with rubber boot mounted on the light fixture (standard on all portable models and dual fixtures)
- Add "S" after configured model number for this option

KR-XL**Extra Length**

- Add "XL" plus the amount in feet after the model number for the additional length desired.
- See pages L16-17 for more information about how to order custom length poles

RM265119**16/2 TPR 9 ft. coil cord with #20 Lighter Plug**

- For use on H.I.D. 70 watt, 12 VDC light fixtures and 150W 12VDC (standard on portable KR-700 HID series)

OPTIONAL PLUGS***Note: Kwik-Raze lights are shipped without plugs**

KR-5266C (Male)	KR-5269C (Female)	KR-4720C (Male)	KR-4729C (Female)	KR-2311 (Male)	KR-2313 (Female)	KR-2321 (Male)	KR-2323C (Female)
3 prong straight plug 15A/125V	NEMA 5-15 connector	3 prong twist lock plug 15A/125V	NEMA L5-15 connector	3 prong twist lock plug 20A/125V	NEMA L5-20 connector	3 prong twist lock plug 20A/250V	NEMA L6-20 connector

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REPLACEMENT BULBS

Light	Watts	Volts	Bulb Type	Part Number
KR-31	70	12	metal halide	KRM89073-10
KR-31-24	70	24	metal halide	KRM89073-10
KR-32	150	12	metal halide	KRM89073-12
KR-32-24	150	24	metal halide	KRM89073-12
KR-33	350	120	quartz halogen IR	KRM89073-8
KR-36	750	120	quartz halogen	KRM89073-7
KR-37	750	220	quartz halogen	KRM89073-5
KR-39	900	240	quartz halogen IR	KRM89073-11
KR-05	300	120	quartz halogen	KRM89073-6
KR-05	500	120	quartz halogen	KRM89073
KR-05	500	220	quartz halogen	KRM89073-1
KR-10	1000	220	quartz halogen	KRM89073-2
KR-15	1500	220	quartz halogen	KRM89073-3
CD-FX-6	100	12	H-1 base	CD-H1100W
CD-FX-9	100	12	H-2 base	CD-H2100W
CD-FX-12 (spot)	55	12	H-2 base	CD-H255W12
CD-FX-12 (flood)	100	12	H-2 base	CD-H2100W
KR-4035X	35	12	Xenon HID	KRM89073-13
KR-4250H	250	120	Halogen	KRM89073-14
KR-4150H	150	120	Halogen	KRM89073-15
KR-4100H	100	120	Halogen	KRM89073-16
CD-RH-HAL100W	100	12	H-3 base	CD-H3100W

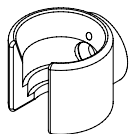
Kwik-Raze Replacement Parts

Part Number	Description
KRM98052-A	Magnafire Ballast, Socket and Lampholder bracket assembly for 70 watt HID
KRM98052-150-A	Magnafire Ballast, Socket and Lampholder bracket assembly for 150 watt HID

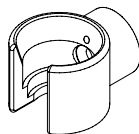
LOWER SUPPORT OFFSET BRACKET

Optional Lower Support Brackets

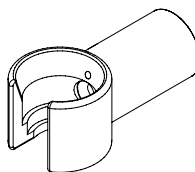
- Provide additional support when mounting poles



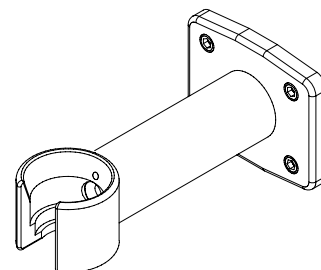
1 1/2" Pole Support
KR-1-SB-R



2" Pole Support
KR-2-SB-R



4" Pole Support
KR-4-SB-R



7" Pole Support with plate
KR-7-SB-R-P

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Standard and Special Pole Length Chart

	Standard Pole Length		Standard Overall Stowed Length with Lighthead								Special Pole Lengths (N7)			
	"C"	"D"	With Magnafire 3000®	With Stonco	With FX Series (N1)	With Dual Magnafire 3000®	With Dual 500W Stonco (KR-05-02)	With Dual FX Series (N1)	With Magnafire 3000® Portable/ Demountable	With Stonco Portable/ Demountable	"C"	"D"	"C"	"D"
	Inner Pole	Outer Pole									Minimum inner pole length	Minimum outer pole length	Maximum inner pole length	Maximum outer pole length
Top Raise Pole (N7, N8)														
100	48	58	69.5	71.5	70.5	72.25	74.25	73.23	72.75	74.75	4 (N4)	8 (N4)	70	84
200-W/2, 4, 7	48	58	69.5	71.5	70.5	72.25	74.25	73.23	72.75	74.75	4 (N4)	8 (N4)	70	84
300	48	58	69.5	71.5	70.5	72.25	74.25	73.23	72.75	74.75	4 (N4)	8 (N4)	70	84
Bottom Raise Pole														
400	48	12	57.5	59.5	58.5	60.25	62.25	61.25	60.75	62.75	14.5	5.5	84	40.5
500-W/2, 4, 7	67.5	24	77	79	78	79.75	81.75	80.75	80.25	82.25	14	6	84	40.5
Permanent Mount														
600	4.75	3	14.75	16.75	15.75	17.5	19.5	18.5	18	20	4.75	3	4.75	3
Portable														
700	N/A	N/A	11.5	13.5	12.5	N/A	N/A	N/A	12	14	N/A	N/A	N/A	N/A
Top Raise Tripod (N7)														
800	40	50	67.5	69.5	68.5	70.25	72.25	71.25	70.75	72.75	31 (N5)	41 (N5)	70	84
800-SL	28	38	50.5	52.5	51.5	53.25	55.25	54.25	53.75	55.75	26.5	36.5	45	55
Top Raise Economy (N8)														
900/TP-1	48	N/A	58	60	60	N/A	N/A	60.25	N/A	N/A	5 (N4)	N/A	48	N/A
Bottom Raise Remote														
1100	67.5	24	73.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	7	84	40.5
1200	48	12	54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.5	5.5	84	40.5
Permanent Mount														
1300	N/A	N/A	9	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Recessed Mount														
1800 thru 2300	Refer to recessed casting measurements (page L20)													
Lightheads ("A")														
Head only w/ handle	N/A	N/A	8.75	10.75	9.75	11.5	13.5	12.5	12	14	N/A	N/A	N/A	N/A
Head only exceptions			Remote = 6		KS-I = 12			KS-II/III = 12.25						

Notes:

- N1 Round crossbar on 900/TP-1 Series (Collins Dynamics®/KS-I, KS-II, KS-III w/TP-1); triple FX is available on 900/TP-1 only; square crossbar on 100-800 series (Kwik-Raze®)
- N3 Measured from 1300 series bottom of mounting base
- N4 Non or minimal telescoping (top raise 600 is recommended for non-telescoping needs)
- N5 If ordering 800 series at minimum pole length with TM (truck mount), add 1.5" to outer length to allow for TM mounting area
- N6 800 series- 1.5" has already been added to top raise pole lengths which is then reflected in the overall length because the tripod legs hang 1.5" below outer pole in closed position (applies to old style tripod KR-800 Series only)
- N7 Top Raise pole series (100, 200, 300, 800)
To allow proper clearance for coiled cord (which is standard),
• If outer top raise pole "D" is greater than 40", then allow a minimum of 10" for poles (between inner "C" and outer "D" pole - i.e. 48" inner, 58" outer)
• If outer top raise pole "D" is less than 40", then allow a minimum of 6" for poles (between inner "C" and outer "D" pole - i.e. 30" inner, 36" outer)
- N8 Option: Indicator switch- adding an indicator switch to a top raise pole requires a 10" difference between inner and outer poles.
• If outer top raise pole "D" is greater than 40", then allow a minimum of 10" for poles (between inner "C" and outer "D" pole - i.e. 48" inner, 58" outer)

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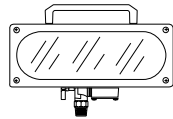
Fax: 215.957.0729

Web: www.havis.com

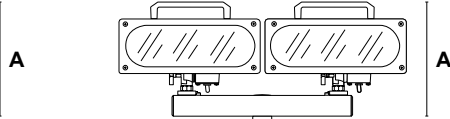
Special Pole Length: Overall Stowed Measurement Configurator

See pages L8-11 for lighthead and the chart to the left for measurements

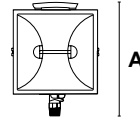
1. Determine desired lighthead ("A") See pages L8-11 for available lighthead



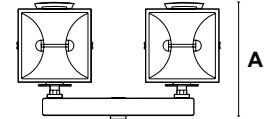
Magnafire 3000®



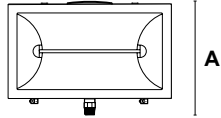
Dual Magnafire 3000®



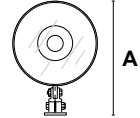
Stonco (KR-05)



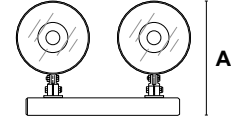
Dual Stonco (KR-05-2)



Stonco (KR-10/KR-15)

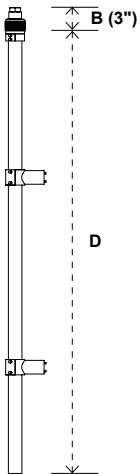


FX Series

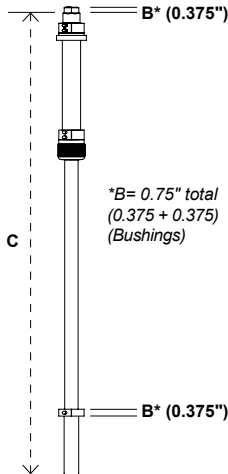


Dual FX Series

2. Determine inner "C" and outer "D" pole length (see chart to the left for standard/special lengths and notes). Use below equations (shown in order by series) to determine overall stowed light pole length.

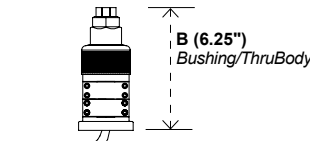


Top Raise (N7, N8)
A + B + D
(100, 200, 300 Series)
(200 Series shown)

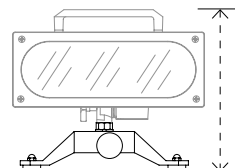


Bottom Raise
A + B + C
(400, 500 Series)
(400 Series shown)

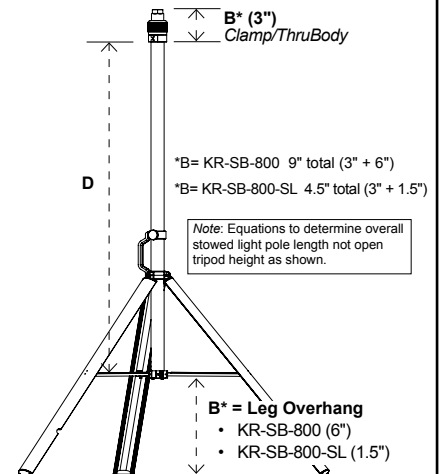
*B = 0.75" total
(0.375 + 0.375)
(Bushings)



Permanent Mount
A + B
(600 Series)



Portable Mount
(700 Series)
No applicable equation
(see chart to left)

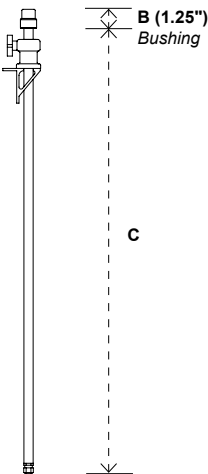


Top Raise Tripod (N7, N8)
A + B + D
(800 Series)

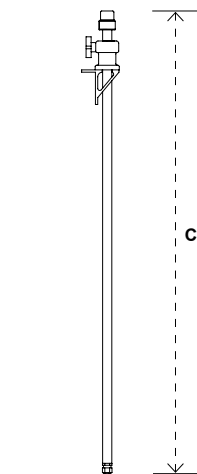
*B = KR-SB-800 9" total (3" + 6")
*B = KR-SB-800-SL 4.5" total (3" + 1.5")

Note: Equations to determine overall stowed light pole length not open tripod height as shown.

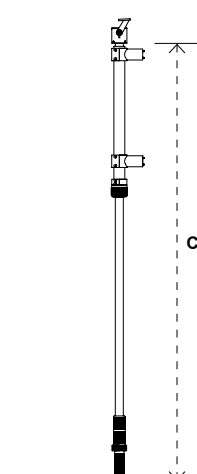
B* = Leg Overhang
• KR-SB-800 (6")
• KR-SB-800-SL (1.5")



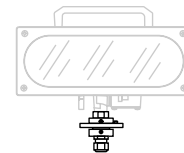
Top Raise Economy
A + B + C
(900 Series)



Top Raise Economy
A (KS-I/KS-II) + C
(TP-1)



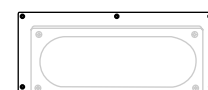
Remote Bottom Raise
A (remote) + C
(1100, 1200 Series)
(1100 Series shown)



Permanent Mount
(1300 Series)
No applicable equation
(see chart to left)



Platform Mount
(1400 Series)
No applicable equation
(see chart to left)



Recessed Mount
(1800-2300 Series)
See Recessed Casting Measurements (page L20)

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By: Havis-Shields

KWIK-RAZE®

Telescoping Pole Mounts

Standard Pole Specs for SB-100-600 and SB-800 Series

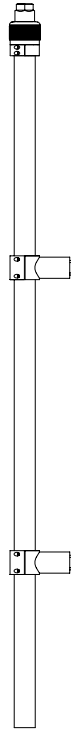
- The inner tube recesses into the outer tube and can be locked in any position by the two piece locking collar
- The locking collar assembly provides a water tight seal for the inner and outer pole
- All poles have a spiral grit and a bright dip anodized finish
- Lifetime warranty

Top Raising Poles



**KR-SB-100 Series
Flush Mount**

- Two Silver Billet flush (1 1/2" offset) mounting brackets



**KR-SB-200 Series
Side Mount**

- Specify 2", 4", or 7" offset
- Two Silver Billet offset mounting brackets



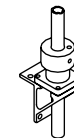
**KR-SB-300 Series
Thru Body Mount**

- One Silver Billet thru body mounting bracket



**KR-900 Series
Economy Thru Body Mount**

- Top raise telescoping economy pole with thru-body mounting flange
- 16/3 ga. 4' concealed cord
- Heavy wall 1" OD anodized aluminum pole with 320 spiral grit bright-dipped finish

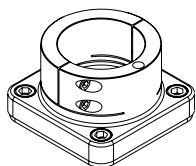


**900 Series Option Corner Mount
CD-OSB-1**

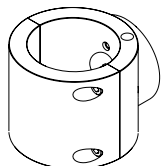
All (except the 900 series) top raise poles come standard with the following:

- One or two Silver Billet mounting brackets
- 48" inner telescoping pole, 58" outer pole
- Concealed coil cord

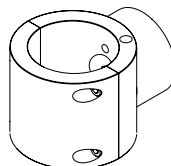
Mounting Brackets Available



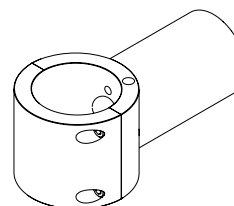
**Thru-Body Mount
Bracket
KR-3-SB**



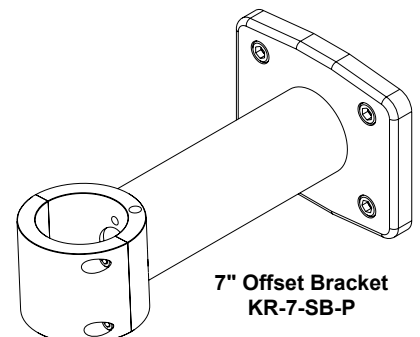
**Flush (1 1/2" Offset)
Mount Bracket
KR-1-SB**



**2" Offset Bracket
KR-2-SB**



**4" Offset Bracket
KR-4-SB**



**7" Offset Bracket
KR-7-SB-P**

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Telescoping Pole Mounts

Standard Pole Specs for SB-100-600 and SB-800 Series

- The inner tube recesses into the outer tube and can be locked in any position by the two piece locking collar
- The locking collar assembly provides a water tight seal for the inner and outer pole
- All poles have a spiral grit and a bright dip anodized finish
- Lifetime warranty

Bottom Raising Poles



KR-SB-400 Series
Thru Body Mount

- 48" inner telescoping pole, 12" outer pole standard
- One Silver Billet thru-body mounting bracket

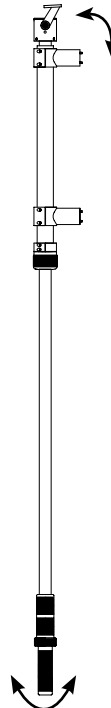


KR-SB-500 Series
Side Mount

- Specify 2", 4" or 7" offset
- 67.5" inner telescoping pole, 24" outer pole standard
- Two Silver Billet offset mounting brackets

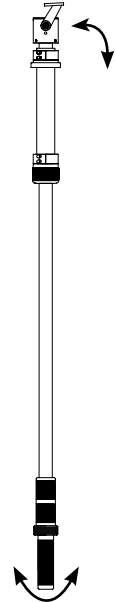
All bottom raise poles come standard with the following:

- Silver Billet mounting brackets
- Concealed wire optional with Stonco fixtures and standard on all others



KR-SB-1100 Series
Remote Bottom Raise 4" or 7"
Side Mount

- Two Silver Billet 4" or 7" offset mounting brackets (specify W4 for 4" brackets or W7 for 7" brackets)
- 67.5" inner telescoping pole, 24" outer pole standard



KR-SB-1200 Series
Remote Bottom Raise
Thru Body Mount

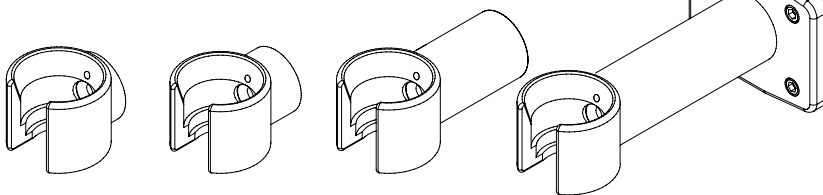
- One Silver Billet thru body mounting bracket
- 48" inner telescoping pole, 12" outer pole standard

Remote Pole Specs for 1100 and 1200 Series

- Poles are bottom-raising with a knurled handle adjustment
- Anodized aluminum pole with a 320-spiral grit bright dipped finish
- Available with Magnafire 31, 32, 33, 36, 37, 39 fixtures only
- Not available with concealed wire or switch

Optional Lower Support Brackets

- Provide additional support when mounting poles



1 1/2" Pole Support
KR-1-SB-R

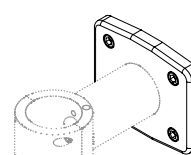
2" Pole Support
KR-2-SB-R

4" Pole Support
KR-4-SB-R

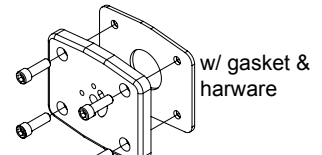
7" Pole Support with plate
KR-7-SB-R-P

Adapter Plates with Brackets

- Includes (2) KRM25024 plates mounted to KR-SB offset brackets
- Change prefix "KR-SB" to "KR-SBP" when ordering complete configured pole
- Offset shafts are shortened to keep original offset distance
- Shipped with pole configured as complete assembly



(KR-4-SB-P shown)



(KRM25024 shown)
w/ gasket & hardware

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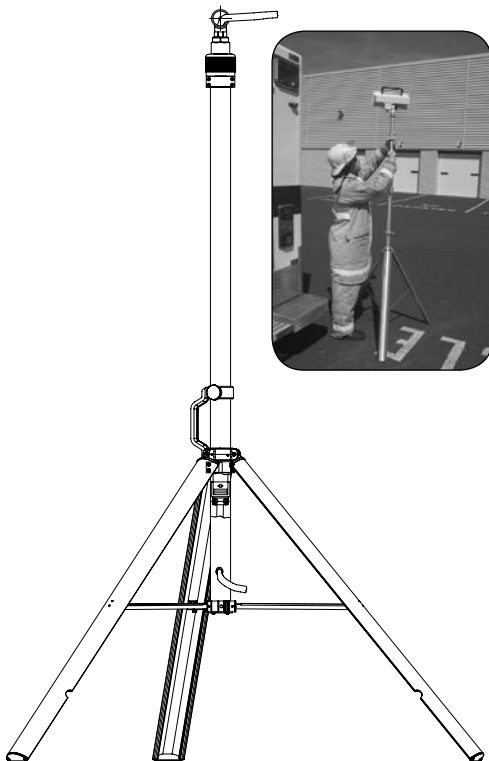
By: Havis-Shields

KWIK-RAZE®

All Top Raise Poles come standard with the following:

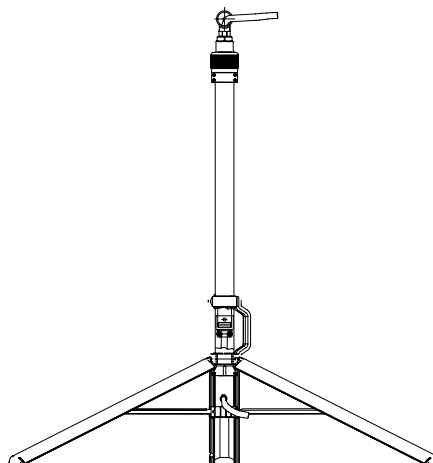
- The inner tube recesses into the outer tube and can be locked in any position by the two piece locking collar
- The locking collar assembly provides a water tight seal for the inner and outer pole
- All poles have a spiral grit and a bright dip anodized finish
- Lifetime warranty

Portable Tripod: Telescoping



**SB-800 Series
Top Raise Telescoping Tripod**

- Overall closed tripod height is 54"

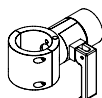


**SB-800-SL Series
Top Raise Telescoping Short Tripod**

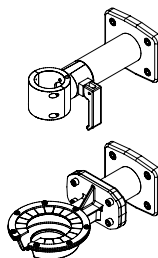
- Overall closed tripod height is 42"

SB-800 and SB-800-SL Top Raise Tripod Specs

- Optional truck mount assembly (specify "TM-SB" or "SB-TM-7") - see below
- On/ off switch standard
- Optional plugs available
- Concealed coil cord
- Special lengths are available
- 9 ft. 16/2 coil cord with cigarette plug standard when ordering with Magnafire H.I.D. KR-31, KR-32, or FX Series Light Fixture
- Anodized aluminum top-raising pole with a 320 grit spiral bright dipped finish
- Silver Billet Locking Collar with a knurled handle adjustment
- 1.38" OD inner pole / 1.88" OD outer pole
- 3/4" bushing and swivel for mounting light fixtures



**SB-800 Series
Truck Mount Option
KR-SB-TM**



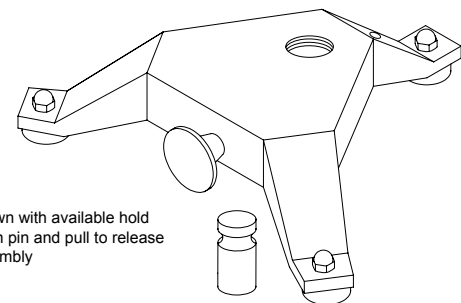
**SB-800 Series
7" Truck Mount Option
KR-SB-TM-7**

Contact us at:

Portable/Tripod



Shown with available grill guard and coil cord for 12 volt operation.



Shown with available hold down pin and pull to release assembly

**700 Series
Portable**

- Cast aluminum black portable base
- 30" straight power cord standard (with Halogen & Magnafire lights KR-33, 36, 37, and 39)
- 9 ft. 16/2 coil cord with cigarette plug standard when ordering with Magnafire H.I.D. KR-31, KR-32, or FX Series Fixture
- On/ off switch standard
- Optional kwik-release hold down assembly (specify "HD")
- Optional plugs available (see page L12)

Hold-Down Pin Only

Brass pin to install/position mount in additional locations (**Part # KRM89030**)

16/2 TPR 9 ft. coil cord with #20 Lighter Plug

For use on H.I.D. 70 watt, 12 VDC light fixtures
- Standard with KR-731 and KR-SB-831 Series
(**Part # RM265119**)

16/2 TPR 9 ft. coil cord with #20 Valox® Lighter Plug

For use on H.I.D. 70 watt, 12 VDC light fixtures
- Standard with KR-731 and KR-SB-831 Series
(**Part # RM265120**)

Ph: 800.524.9900 or 215.957.0720

E-mail: sales@havis.com

Fax: 215.957.0729

Web: www.havis.com

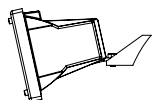
Recessed Body Mounts

Available for Magnafire 3000® lights only

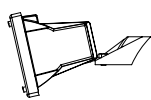
Recessed Mount	Recessed Depth	Light Angle Position	Available Lightheads					
			KR-31	KR-32	KR-33	KR-36	KR-37	KR-39
1800	2.5"	0° horizontal	KR-1831	KR-1832	KR-1833	KR-1836	KR-1837	KR-1839
1900	2.5"	10° downward	KR-1931	KR-1932	KR-1933	KR-1936	KR-1937	KR-1939
2100	2"	10° downward	KR-2131	KR-2132	KR-2133	KR-2136	KR-2137	KR-2139
2200	5.5"	0° horizontal	KR-2231	KR-2232	KR-2233	KR-2236	KR-2237	KR-2239
2300	5.5"	10° downward	KR-2331	KR-2332	KR-2333	KR-2336	KR-2337	KR-2339

MAGNAFIRE CUSTOM CAB BROW MOUNTS® (1500 SERIES)

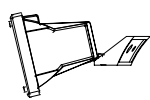
- Brow Mounts are Vehicle Specific - contact your OEM dealer for availability for your vehicle
- Cast formed to match roof radius
- Relamps from the front of fixture
- Cast aluminum housing with light fixture positioned at 10° downward angle
- Available for Spartan, KME, E-ONE, American LaFrance, 2003-2007 Freightliner M2 cabs, and other manufacturers



KR-15XX-ALF-C
(Center Mount)



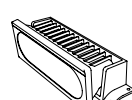
KR-15XX-ALF-D
(Driver side Mount)



KR-15XX-ALF-P
(Pass. side Mount)



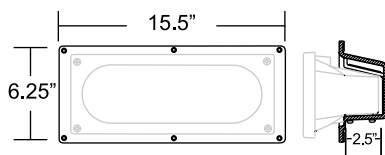
KR-15XX
(EONE Mount)



KR-15XX-SP-KOV
(Center Mount)



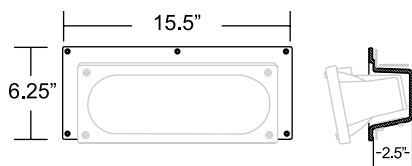
1800 SERIES 2.5" RECESSED MOUNT



- Polished aluminum housing with Magnafire 3000 light fixture positioned at 0° horizontal angle
- Requires 14.25" x 5" cutout for in-body mounting
- Recessed depth is 2.5"
- Relamps from the front of fixture



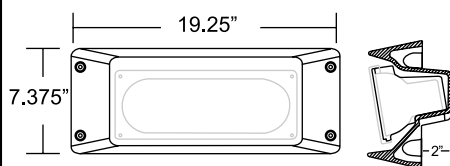
1900 SERIES 2.5" RECESSED MOUNT



- Polished aluminum housing with Magnafire 3000 light fixture positioned at 10° downward angle
- Requires 14.25" x 5" cutout for in-body mounting
- Recessed depth is 2.5"
- Relamps from the front of fixture



2100 SERIES 2" RECESSED MOUNT



- Polished aluminum housing with Magnafire 3000 light fixture positioned at 10° downward angle
- Housing designed to protect the light fixture
- Requires 13.5" x 4.5" cutout for in-body mounting, recessed depth is only 2"
- Relamps from the front of fixture



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By: Havis-Shields

KWIK-RAZE®

Kwik-Raze® Lighthead

Kwik-Raze® Poles and Mounts

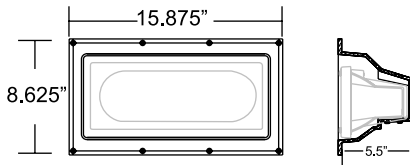
Kwik-Strike® 4000 Light

Collins Dynamics® Lights

Recessed Body Mounts

(Available for Magnafire 3000® lights only, see available lights on previous page)

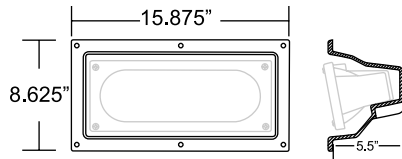
2200 SERIES 5.5" FLUSH RECESSED MOUNT



- Polished aluminum housing with Magnafire 3000 light fixture positioned at 0° horizontal angle
- Requires 14.375" x 7.125" cutout for in-body mounting
- Relamps from the front of fixture



2300 SERIES 5.5" RECESSED MOUNT

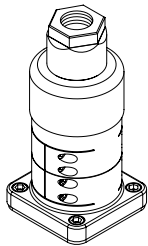


- Polished aluminum housing with Magnafire 3000 light fixture positioned at 10° downward angle
- Requires 14.375" x 7.125" cutout for in-body mounting
- Relamps from the front of fixture



NON-TELESCOPING MOUNTS

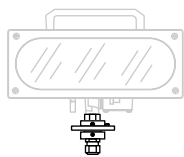
SB-600 SERIES PERMANENT MOUNT



- One two-piece locking collar
- One Silver Billet thru body mounting bracket
- Concealed wire standard (36" length)
- Switch optional



1300 SERIES LOW CLEARANCE PERMANENT MOUNT



- 3.13" square base plate
- 358° horizontal rotation and 180° vertical tilt
- Switch optional



1400 SERIES PLATFORM MOUNT



- Permanently mounted angle brackets
- 90° vertical tilt adjustment
- On/off switch not available



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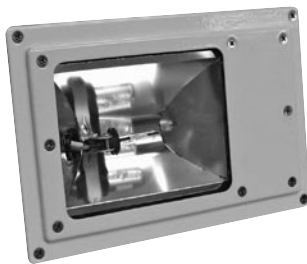
KWIK-STRIKE 4000 PERIMETER FLOOD LIGHTING

Twice the light output with half the current draw

- **12v HID** or 120v Halogen available
- **35 watt**, 12v HID Model features instant "on" and hot restrike
- **Flush Mount Fixture** (1.875" deep) recesses cleanly in standard 2" truck wall
- **Easy Front Access** to ballast and bulb
- **Available** in chrome (standard) or white finish



Kwik-Strike 4000 Chrome Finish
(Standard)

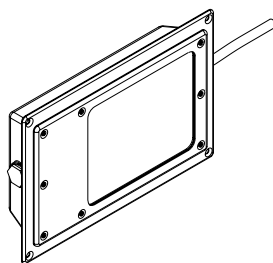


Kwik-Strike 4000 White Finish
(Optional)



Features a choice of two beam patterns

Part Number Descriptions



Lamp:

- 4250H = Halogen 250 Watt, 120 Volt
- 4150H = Halogen 150 Watt, 120 Volt
- 4100H = Halogen 100 Watt, 120 Volt
- See page L13 for replacement bulbs

Reflector:

- H = 12-15° range horizontal beam (Flood/Area)
- D = 20-65° range downward angled (Flood) beam

Reflector Position

- L = left side (facing light, reflector on left side of light)
- R = right side (facing light, reflector on right side of light)

Paint Color:

- Chrome finish is standard
- White paint finish is also available. Add "-W" to part number

Part Number	Description
KR-4035X-H-L	Recessed Mount HID Xenon 35 Watt, 12 Volt, Horizontal 12-15° Flood Beam, Left Side Reflector
KR-4035X-H-R	Recessed Mount HID Xenon 35 Watt, 12 Volt, Horizontal 12-15° Flood Beam, Right Side Reflector
KR-4035X-D-L	Recessed Mount HID Xenon 35 Watt, 12 Volt, Downward 20-65° Flood Beam, Left Side Reflector
KR-4035X-D-R	Recessed Mount HID Xenon 35 Watt, 12 Volt, Downward 20-65° Flood, Right Side Reflector
KR-4250H-H-L	Recessed Mount Halogen 250 Watt, 120 Volt, Horizontal 12-15° Beam, Left Side Reflector
KR-4250H-H-R	Recessed Mount Halogen 250 Watt, 120 Volt, Horizontal 12-15° Beam, Right Side Reflector
KR-4250H-D-L	Recessed Mount Halogen 250 Watt, 120 Volt, Downward 20-65° Beam, Left Side Reflector
KR-4250H-D-R	Recessed Mount Halogen 250 Watt, 120 Volt, Downward 20-65° Beam, Right Side Reflector
KR-4150H-H-L	Recessed Mount Halogen 150 Watt, 120 Volt, Horizontal 12-15° Beam, Left Side Reflector
KR-4150H-H-R	Recessed Mount Halogen 150 Watt, 120 Volt, Horizontal 12-15° Beam, Right Side Reflector
KR-4150H-D-L	Recessed Mount Halogen 150 Watt, 120 Volt, Downward 20-65° Beam, Left Side Reflector
KR-4150H-D-R	Recessed Mount Halogen 150 Watt, 120 Volt, Downward 20-65° Beam, Right Side Reflector
KR-4100H-H-L	Recessed Mount Halogen 100 Watt, 120 Volt, Horizontal 12-15° Beam, Left Side Reflector
KR-4100H-H-R	Recessed Mount Halogen 100 Watt, 120 Volt, Horizontal 12-15° Beam, Right Side Reflector
KR-4100H-D-L	Recessed Mount Halogen 100 Watt, 120 Volt, Downward 20-65° Beam, Left Side Reflector
KR-4100H-D-R	Recessed Mount Halogen 100 Watt, 120 Volt, Downward 20-65° Beam, Right Side Reflector
KRM001704	4000™ Series Kwik Strike Gasket Retrofit

Contact us at:

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HANDHELD SPOTLIGHTS

Powerful handheld light where you need it



FOR MORE VEHICLE APPLICATIONS
& MOUNTING ACCESSORIES,
CONTACT 1-800-524-9900 OR
VISIT WWW.HAVIS.COM

- A full line of powerful portable and handheld spotlights
- Designed for scene lighting requirements
- Constructed of rugged weatherproof materials
- Reliable high-intensity light output and performance
- Increase safety with up to 1,250,000 candlepower
- Battery and corded models available



Xenon Handheld Spotlight (CD-RH-HID35W)



Same High Intensity Discharge Bulb
Technology as used on luxury cars

Handheld for quick intuitive spotting
vs. remote controlled lights

Waterproof with a durable
thermoplastic rubber housing

Optimized Beam Pattern for
fast and accurate positioning

8' Power Cord with 12V outlet plug

35W Xenon HID or 100W Halogen available

Battery Pack runtime 1 hour 40 minutes
(35W), 35 minutes (100W)



Magnum with Infrared
Lens (CD-MAGNUM
with CD-IR-8)



Genesis Spotlight
(CD-56/5B)
(includes battery pack)



Illuminating a Utility
Pole
(CD-RH-HID35W)



Battery Pack Sold
Separately
(CD-BP-12)

QUESTAR ROOF MOUNTED SPOTLIGHT

Illuminate areas that pillar-mounted spotlights cannot reach



- Easy-to-use ergonomic handle design
- Dual bulb spotlight pinpoints targets easily and quickly
- Continuous 360° rotation, 110° tilt
- Locking clutch keeps light in place during pursuit
- Bright white light
- Watertight seal
- Easy right-hand option



Ergonomically Designed
Control Handle





COLLINS DYNAMICS® HANDHELD SEARCH LIGHTS



Part Number

CD-CL-12



CL-12

- Dual stage reflector provides halogen spot or flood beam pattern
- Black anodized aluminum body. Die-cast handle with texture finish.
- Includes 9 ft. coil cord
- 12 volt draws 7.8 amps on spot, 4.3 amps on flood
- On/ off/ on switch standard
- Optional momentary switch (CD-CL-12-M)
- Uses 100 watt H-2 spot and 55 watt H-2 flood bulbs

Reflector		Candlepower		Bulb		Material	Volts
Type	Diam.	Spot	Flood	Spot	Flood		
Dual Stage	7"	750,000	5,000	100W	55W	Aluminum	12*

CD-MAGNUM



Magnum

- Single stage reflector provides halogen spot beam pattern
- Black anodized aluminum body. Die-cast handle with texture finish
- Momentary switch standard
- Includes 9 ft. coil cord
- Plugs into any 12 volt accessory outlet. Draws 7.8 amps
- Uses 100 watt H-1 bulb
- Weighs only 3.7 lbs.

Single Stage	8.5"	1,250,000	N/A	100W	N/A	Aluminum	12*
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CD-PULS500



Pulsar 500

- Single stage reflector provides halogen spot beam pattern
- Black impact-resistant poly-carbonate
- Includes 9 ft. coil cord and D clip
- Momentary switch standard
- Plugs into any 12 volt accessory outlet. Draws 7.8 amps
- Uses 100 watt H-1 bulb

Single Stage	6"	500,000	N/A	100W	N/A	Polycarbonate	12*
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CD-PULS750



Pulsar 750

- Dual stage reflector provides selectable spot and flood beam patterns
- Black impact-resistant polycarbonate
- Includes 9 ft. coil cord and D clip
- Momentary switch standard
- Plugs into any 12 volt accessory outlet. Draws 7.8 amps on spot, 4.3 amps on flood
- Uses 100 watt H-2 spot and 55 watt H-2 flood bulbs

Dual Stage	7"	750,000	5,000	100W	55W	Polycarbonate	12*
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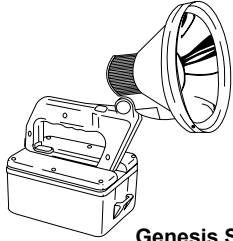
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By: Havis-Shields

COLLINS DYNAMICS® LIGHTS

PORTABLE AND RECHARGABLE LIGHTS



Genesis Spot/Flood Lights



CD-12B Portable Spot/Flood Lights



Genesis Selectable Spot/Flood Lights

All units are of polycarbonate construction and include a removable handheld light and 7.0 amp-hour battery with DC charge connector

Genesis 46/5B

- 1 hour spot and 6 hours flood run time
- 8 hour recharge time
- 3-position rocker switch standard

CD-46/5B

Dual Stage

6"

200,000

1,000

55W

12W

Polycarbonate

12

H-2

P-2

CD-56/5B

Dual Stage

7"

400,000

2,000

55W

25W

Polycarbonate

12

H-2

P-2

Genesis 56/5B

- 1 hour spot and 2.5 hours flood run time
- 8 hour recharge time
- 3-position rocker switch standard

CD-12 Portable Spot/Flood Light

Selectable spot/flood with 7" dual stage reflector. Includes bulbs, rechargeable battery pack, 110VAC charger, rubber impact ring, and shoulder strap. Black only.

Weighs 12.5 lbs.

CD-12

- 1 hour spot only
- 16-18 hour recharge time

CD-12MAG

Single Stage

8.5"

1,250,000

N/A

1000W

N/A

Aluminum

12

H-1

CD-12B

- 1 hour spot and 1.5 hours flood run time
- 16-18 hour recharge time
- 3 position toggle switch standard

CD-12B

Dual Stage

7"

750,000

5,000

100W

55W

Aluminum

12

H-2

H-2

Part Number	Portable Rechargeable Options/Accessories	Weight
CD-MCR-M	Metal vehicle charger bracket for Genesis	3 lbs.
CD-MC-220P	220 VAC charger with molded connector for Genesis battery pack	2 lbs.
CD-DMB-1	Dash mounting clip for Pulsar & Genesis handheld light unit	1 lb.
CD-GEN-5B	7.0 amp hour Genesis 5 battery pack only, with black case	8 lbs.
CD-RB-5	12 volt lead acid replacement cell for Genesis 5 battery packs	7 lbs.
CD-14.2	14.4 volt Nicad replacement battery for CD-12	7 lbs.
CD-NC12012	110 VAC charger for CD-12	2 lbs.
CD-NC22012	220 VAC charger for CD-12	2 lbs.
CD-RR-1	Rubber ring for 7" lenses, CL-12, CD-12, and FX series	1 lb.
CD-GEN-46B	Genesis 46 handheld unit only, black	2 lbs.
CD-GEN-56B	Genesis 56 handheld unit only, black	2 lbs.
CD-SS-60	Nylon shoulder straps with clips, for Genesis system	1 lb.
CD-RR-46	Hypalon rubber ring for 6" reflector diameter	1 lb.
CD-RR-56	Hypalon rubber ring for 7" reflector diameter	1 lb.
CD-MC-110P	110 VAC charger with connector for Genesis battery pack	2 lbs.
CD-MC-12P	9' coiled cord with lighter plug for operating or charging the Genesis system	1 lb.

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CD-RH-DMB-1
Dash Mounting Bracket

XENON H.I.D. & HALOGEN HANDHELD SPOTLIGHTS

- Same high intensity discharge technology as used on luxury cars
- Waterproof with a durable thermoplastic rubber housing
- Handheld for quick intuitive spotting vs. remote controlled lights
- Optimized beam pattern for fast and accurate positioning
- Highly efficient, generates almost no heat
- 6.10" lens diameter
- 8' power cord with 12V cigarette lighter plug
- Order battery pack (CD-BP-12) separately (see page L33)
- Dash Mounting Bracket for CD-RH light is available (P/N CD-RH-DMB-1). Order separately.



Part Number	Bulb Type	Brightness	Power Draw	Color	Visibility to Human Eye	Bulb Life	Switch
CD-RH-HID35W	35W Xenon H.I.D.	3200 Lumens	3 amps	Cool White	Excellent	2500 hours	Yes
CD-RH-HAL100W	100W Halogen	1800 Lumens	8.5 amps	Warm White	Good	50-100 hours	Yes

MAGNETIC AND FIXED MOUNTED LIGHTS: "KNIGHT STAR SERIES"

- Knight Star Series light housings are made of impact resistant molded polycarbonate, and are available with fixed or magnetic mount bases.

MAGNETIC MOUNTS



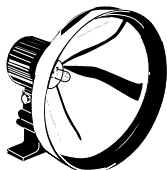
CD-KN-6MS magnetic mount

Part Number	Base Type	Reflector		Candlepower		Bulb		Material	Volts	Switch Included	Amp Draw
		Type	Diam.	Spot	Flood	Spot	Flood				
CD-KN-6MS	Mag.	Single stage	6"	350,000	N/A	100W H-1	N/A	Polycarbonate	12*	Yes	7.8
CD-KN-6MF	Mag.	Single stage	6"	N/A	60,000	N/A	100W H-1	Polycarbonate	12*	Yes	7.8
CD-KN-7M6	Mag.	Single stage	7"	N/A	125,000	N/A	100W H-1	Polycarbonate	12*	No	7.8

* Optional 24 volt bulbs are available

- Magnetic mount models have a 90 lb. pull magnetic base, a 15 foot, 16 gauge Neoprene rubber coiled cord, a 2 position toggle switch, and a 12-volt accessory outlet plug. Black color only.

FIXED MOUNTS



CD-KN-7PSF fixed-mount

Part Number	Base Type	Reflector		Candlepower		Bulb		Material	Volts	Switch Included	Amp Draw
		Type	Diam.	Spot	Flood	Spot	Flood				
CD-KN-6PS	Perm.	Single stage	6"	350,000	N/A	100W H-1	N/A	Polycarbonate	12*	No	7.8
CD-KN-6PF	Perm.	Single stage	6"	N/A	60,000	N/A	100W H-1	Polycarbonate	12*	No	7.8
CD-KN-7PSF	Perm.	Dual stage	7"	750,000	5,000	100W H-2	55W H-2	Polycarbonate	12*	No	7.8
CD-KN-7P6	Perm.	Single stage	7"	N/A	125,000	N/A	100W H-1	Polycarbonate	12*	No	7.8

* Optional 24 volt bulbs are available

- Fixed mount models have a black powder-coated steel mounting bracket and 90° vertical tilt range. Switch not available on fixed mount models.

PAR-46 Replacement Kits

Sealed Beam Spotlight Upgrade

- Spot or flood retrofit systems for PAR-46 sealed beams
- Includes parabolic reflector, bulb, and wiring
- Easy to install
- Draws 7.8 amps
- Uses 100 watt H-1 bulb

CD-PAR-46F Flood Replacement Kit

- 60,000 candlepower 54° flood pattern. Uses 100 watt H-1 bulb. Draws 7.8 amps.

CD-PAR-46S Spot Replacement Kit

- 350,000 candlepower parabolic reflector provides long-range illumination.



CD-PAR-46F or
CD-PAR-46S

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COLLINS DYNAMICS® LIGHTS

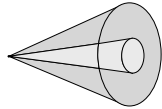
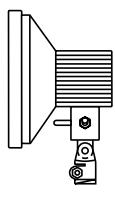
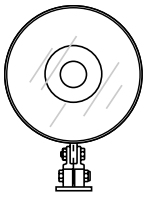
Kwik-Raze® Lighthead

Kwik-Raze® Poles and Mounts

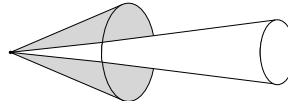
Kwik-Strike® 4000 Light

Collins Dynamics® Lights

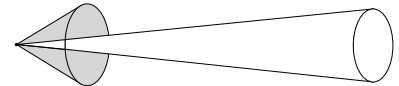
FX SERIES DECK LIGHTS



FX-6 beam pattern
300,000 cp spot (center), 125,000 cp flood (40°)



FX-9 beam pattern
500,000 cp spot, 50,000 cp flood



FX-12 beam pattern
750,000 cp spot, 5,000 cp flood

- Single and dual stage reflectors provide halogen spot, flood and enhanced flood beam patterns
- Black anodized aluminum with chrome plated reflector housing
- On/ off switch standard
- All models are standard 12 volt and, if specified available with 24 volts
- Order mounting bases separately; see below

Part Number

CD-FX-6

CD-FX-6 Enhanced flood light

- Enhanced flood pattern decklight with 7" single stage 40° reflector
- Bulb Lumen Rating: 2,800
- Amp draw: 7.8 amps @12V
- Bulb life: 150 hours

Reflector

Type

Diam.

Candlepower

Spot

Flood

Bulb

Spot

Flood

Volts

Single stage

7"

300,000

125,000

N/A

100W
H-1

12

CD-FX-9

CD-FX-9 Selectable spot/flood light

- Select spot or flood pattern with 7" dual stage reflector
- Bulb Lumen Rating: 3,000
- Amp draw: 7.8 @12V
- Bulb life: 100 hours

Dual stage

7"

500,000

50,000

100W
H-2

100W
H-2

12

CD-FX-12

CD-FX-12 Selectable spot/flood light

- Select spot or flood pattern with 7" dual stage reflector
- Bulb Lumen Rating: 3,000
- Amp draw: 7.8 @12V on spot; 4.2 @12V on flood
- Bulb life: 100 hours

Dual stage

7"

750,000

5,000

100W
H-2

55W
H-2

12

FX BASES

(see page L8 for additional mounting options)

Choose from four styles of heavy duty, chrome plated brass bases (CD-BM-1 is a matte black). They are designed to provide a lifetime of use. Complete hardware is included.



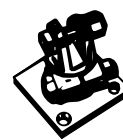
CD-BM-1

3" diameter 90 lb. pull magnetic base for flush mounting



CD-BR-1

3" round base with 4 holes for permanent mounting



CD-BS-1

2" square base with 4 holes for permanent mounting



CD-BC-1

Bar clamp fits 3/4" to 1-1/2" diameter poles

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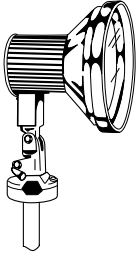


COLLINS DYNAMICS POLE MOUNTED LIGHTS

- Light fixtures tilt and swivel independently
- Chrome plated reflector housing
- Order the TP-1 telescoping pole separately
- See previous page for FX light specs

Part Number

CD-KS-I, CD-KS-I-6, CD-KS-I-9

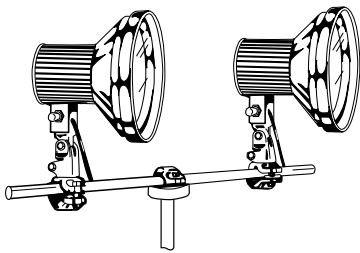


CD-KS-I

- One FX light complete with wiring, hardware, and base for mounting on a TP-1 telescoping pole.
- Up to 750,000 candlepower spot, 125,000 candlepower flood
- Draws 7.8 amps max.
- Specify KS-I for FX-12 head, KS-I-9 for FX-9 head, or KS-I-6 for FX-6 head



CD-KS-II, CD-KS-II-6, CD-KS-II-9

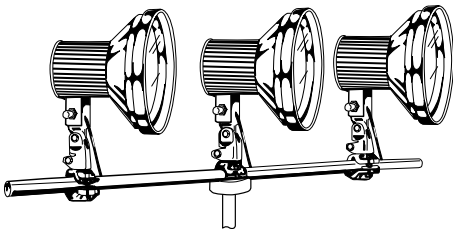


CD-KS-II

- Two FX lights complete with wiring, hardware, mounted on a 20" bright dipped aluminum crossbar.
- Up to 1,500,000 candlepower spot, 250,000 candlepower flood
- Draws 15.6 amps max.
- Specify KS-II for FX-12 head, KS-II-9 for FX-9 head, or KS-II-6 for FX-6 head



CD-KS-III, CD-KS-III-6, CD-KS-III-9



CD-KS-III

- Three FX lights complete with wiring, hardware, and base mounted on a 28" bright dipped aluminum crossbar.
- Up to 2,250,000 candlepower spot, 375,000 candlepower flood
- Draws 23.4 amps max
- Specify KS-III for FX-12 head, KS-III-9 for FX-9 head, or KS-III-6 for FX-6 head



CD-TP-1



CD-TP-1 Telescoping Pole

- Top raise telescoping economy pole with thru-body mounting flange
- 16/3 ga. concealed cord, 4' in length
- Heavy wall 1" OD anodized aluminum pole with 320 spiral grit bright-dipped finish
- Bar clamp sold separately (CD-BC-1) unless ordering a KS series light



TP-1/900 Series offset bracket to corner mount pole
CD-OSB-1

Part Number	Description	Weight	Part Number	Description	Weight
CD-KS-I	One FX-12 with base and wiring for pole mount	6 lbs.	CD-KS-III	Three FX-12 on crossbar for pole mount	17 lbs.
CD-KS-I-6	One FX-6 with base and wiring for pole mount	6 lbs.	CD-KS-III-6	Three FX-6 on crossbar for pole mount	17 lbs.
CD-KS-I-9	One FX-9 with base and wiring for pole mount	6 lbs.	CD-KS-III-9	Three FX-9 on crossbar for pole mount	17 lbs.
CD-KS-II	Two FX-12 on crossbar for pole mount	14 lbs.	CD-TP-1	Telescoping pole standard 4' for all KS series lights	5 lbs.
CD-KS-II-6	Two FX-6 on crossbar for pole mount	14 lbs.	CD-OSB-1	TP-1/900 Series offset bracket to corner mount pole	1 lb.
CD-KS-II-9	Two FX-9 on crossbar for pole mount	14 lbs.			

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Kwik-Raze® Lighthoods

Kwik-Raze® Poles and Mounts

Kwik-Strike™ 4000 Light

Collins Dynamics® Lights

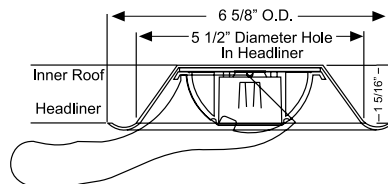


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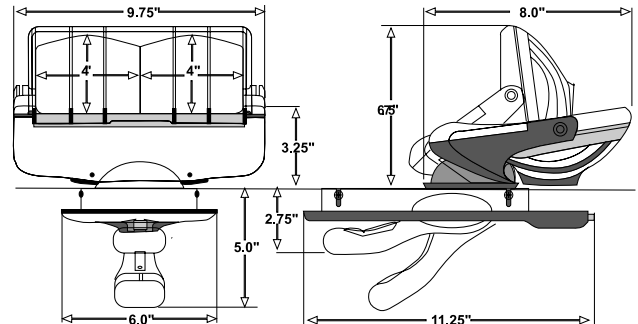
COLLINS DYNAMICS® LIGHTS

QUESTAR®

Questar is designed exclusively for vehicle rooftop mounting and includes complete step-by-step mounting instructions.



CD-QS-3 and CD-QS-4
(shown with trim bowl and handle only)



CD-QS-1 and CD-QS-2
(shown with light head)

Part Number

Reflector

CD-QS-1

- Questar spotlight with locking "trigger" clutch in handle.
- Weight: 5 lbs.

Type

Single stage

Size

Two 4" x 4"
parabolic
chambers

Candlepower

300,000

Bulb

Two
55W H-3

Material

Die cast aluminum
frame. Molded poly-
carbonate body.

Volts

12

CD-QS-2

- Questar spotlight with preset tension adjustment for tilt & rotation (no clutch).
- Weight: 5 lbs.

Single stage

Two 4" x 4"
parabolic
chambers

300,000

Two
55W H-3

Die cast aluminum
frame. Molded poly-
carbonate body.

12

CD-QS-3

- Questar spotlight with locking "trigger" clutch in handle and small trim bowl for vehicles with limited head liner space.
- Weight: 5 lbs.

Single stage

Two 4" x 4"
parabolic
chambers

300,000

Two
55W H-3

Die cast aluminum
frame. Molded poly-
carbonate body.

12

CD-QS-4

- Questar spotlight with preset tension adjustment for tilt & rotation, and small trim bowl (no clutch).
- Weight: 5 lbs.

Single stage

Two 4" x 4"
parabolic
chambers

300,000

Two
55W H-3

Die cast aluminum
frame. Molded poly-
carbonate body.

12

Questar® Accessories



4G-COVER

- Protective cover for the Questar Light

CD-QS-KIT

- Kit for CD-QS-1 and CD-QS-2 for reinstalling Questar from one vehicle to another

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Questar Application Guide

Vehicle Make & Model	Years	Dist. A	Dist. B	Application Notes
Chevrolet/GMC				
Colorado/Canyon	2004-2008	10"	14"	Note 9
Impala (Police Pkg)	2000-2005	13"	19"	
Impala (not recommended)	2006-2008	18"	24"	Note 1
S-10 Blazer/S-15 Jimmy	1984-2002	12"	18"	Note 2
S-10 Blazer/S-15 Jimmy (4 DR)	1995-2004	12"	18"	Note 2
Suburban	1995-1999	14"	20"	Notes 2, 4, 9
Suburban/Tahoe	2000-2006	14"	20"	Notes 2, 6
GMC Yukon/Yukon XL	2000-2006	14"	20"	Notes 2, 6
S-10/S-15 Sonoma (all)	1995-2004	12"	18"	
Silverado/Sierra Pick-ups (all)	2000-2006	14"	20"	Note 2
Suburban/Tahoe/Silverado	2007-2008	21"	27"	Notes 2, 4
Yukon/Yukon XL/Sierra	2007-2008	21"	27"	Notes 2, 4
Full size G series van	1997-2008	16"	22"	Note 7
Astro/Safari van	1997-2005	14.5"	20.5"	
DaimlerChrysler				
Charger	2006-2008	16"	22"	
Magnum	2005-2008	16"	22"	
Durango	1999-2003	12"	18"	Effects lightbar mounting, note 9
Durango	2004-2008	15"	21"	
Jeep Cherokee	1989-2002	7"	13"	Note 1
Dodge Full-Size Pickup				
Extended Cab	2004-2005	14"	20"	
Club Cab	1994-2002	12"	18"	Note 4
Dodge Dakota				
Standard/Club Cab	1997-2007	13"	19"	
Full size Ram Van				
109" W.B./127" W.B.	1984-2004	18"	24"	Note 1
Caravan/Voyager				
112" W.B./119" W.B.	1986-2002	18"	24"	Note 1, 2
Ford				
LTD Crown Victoria	1979-2008	12"	18"	Note 6
Taurus	1997-2006	10"	16"	
Excursion	2001-2006	See Note 10	12"	Notes 2, 9, 10 (CD-QS-3 or CD-QS-4 recommended)
Expedition	1997-2008	10.5"	16.5"	Note 2
Explorer	1997-2008	12"	18"	
Sport Trac	2007-2008	12"	18"	
F-150	1996-2003			
Regular Cab		10.5"	16.5"	Note 8
Super Cab		12"	18"	
F-150	2004-2006	10.5"	10.5"	Note 1
F-250, 350, 450, 550 (all)	1999-2007	See Note 10	12"	Notes 2, 5, 9 (CD-QS-3 or CD-QS-4 Necessary)
F-250 - 550 (Chassis cab)	1999-2007	See Note 10	12"	Notes 2, 5, 9 (CD-QS-3 or CD-QS-4 Necessary)
Ranger Pick-up	1999-2007	12"	18"	
Econoline Van	1992-2008	9"	15"	Note 2
Windstar	1995-2003	12"	18"	



Distance "A" is to the front of the trim grommet and Distance "B" is to the center of the trim bowl.

Distance "A" and "B" are the distances measured from the windshield edge. Mark this distance on center line of masking tape.

- See next page for important installation information

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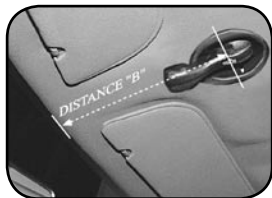
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By: Havis-Shields

COLLINS DYNAMICS® LIGHTS



Distance "A" is to the front of the trim grommet and **Distance "B"** is to the center of the trim bowl.

Distance "A" and "B" are the distances measured from the windshield edge. Mark this distance on center line of masking tape.

IMPORTANT INFORMATION: REVIEW PRIOR TO INSTALLATION

Visual Inspection— Many vehicles have a large area in which to mount the Questar® spotlight. In addition to the location specified above, you should be able to find other locations. Always try to mount the Questar spotlight in an area where the headliner is on a flat surface and tight to the roof liner. It is necessary to check under the headliner structure to make sure that you will not be cutting a structural roof member.

Use the following steps to determine if you can install a Questar® spotlight in a vehicle not listed in the application guide:

1. Remove sun visor and/ or any other parts in the way so the headliner can be lowered on at least one side.
2. Look for cross support. Cross supports are not recommended. Use a flashlight or drop light if necessary. Take measurements to determine if space is available. Trim grommet space requirements are: TRG-1: 9" long x 6" wide.
3. Choose a mounting location on a flat surface of roof, allowing as much contact as possible for the stabilizer plate on the spotlight. Also be aware of roof corrugations, and double-skin roofs. Note: Spotlight must be mounted through only the outer skin of roof.
4. Once an acceptable location is found, mark the location according to the Questar Installation Guide.

Application Notes

1. **Off-center mounting**— This roof may have a rib running front to rear on the outer roof skin. Check the outer roof prior to installing. This will necessitate off-center mounting.
2. **Overhead consoles**— If your vehicle has a full length over-head console, the Questar® spotlight will have to be mounted off to one side of the console, or the console will have to be modified by the equipment installer. Electronic controls mounted in consoles have wires that run from front to rear that must be relocated prior to installing the spotlight.
3. **The Chevy G-Series Van** with a cardboard headliner has a sheet metal screw in the center of the headliner that holds it to a small support bracket underneath. Remove the screw. When the light is installed, it will support the headliner.
4. **Double steel roof**— Pickup trucks with double steel roofs require the inner metal roof to be cut out after the material headliner is cut out. After cutting the material headliner, mark the metal panel, and remove, or pull down the headliner. Prior to cutting the metal, redraw the hole opening 1/4" larger. The inner metal may be cut with a small Air Nibbler®, or tin snips. If you use an Air Nibbler, make sure that there is enough clearance between the inner and outer roofs so the anvil, or punch doesn't hit the outer roof panel.
5. **Crossmembers**— There are several crossmembers in the roof. The Questar trim bezel must be mounted in the exact location listed on the application guide.
6. **Police Packages**— Some police package cars have a steel inner-roof support between the roof and headliner. This support plate must be removed in order to mount the Questar. Some police vehicles are equipped with optional dome lights which may have to be relocated to install the Questar.
7. **Full-size G van**— Measure on center line over the storage compartment.
8. **Ford F-Series**— After you cut the headliner out, trim grommet gaskets (included - part # 4G-TG-GASK) will need to be used.
9. **Smaller trim Grommet Recommended** CD-QS-3 or CD-QS-4: We recommend the smaller optional trim grommet for this application. This trim grommet does not have a built-in on/off switch. Using this trim grommet requires hard wiring a switch on the dash or other location, if standard CD-QS-1 or CD-QS-2 grommet is used.
10. **Special install instructions**: These vehicles have a roof support member which mounts across the cab. When mounting a Questar® on this vehicle, with or without OEM instructions, follow the Questar install instructions for detailed instructions.

For technical assistance, call 1-800-524-9900 or visit www.havis.com

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COLLINS DYNAMICS ACCESSORIES, REPLACEMENT PARTS AND SWITCHES

Accessories		
Part Number	Description	Weight
CD-BP-12	12 Volt Battery Pack (Battery pack, 110 Volt Charger & gray pouch/carrying case)	6 lbs.
CD-NC12012	110 VAC charger for CD-12	2 lbs.
CD-NC22012	220 VAC charger for CD-12	2 lbs.
CD-NC220DR	Dual Rate 220 Volt Charger for CD-12	2 lbs.
CD-14.2	14.4 volt Nicad replacement battery for CD-12	7 lbs.
CD-BP12012	120 VAC charger for CD-BP-12 battery pack	2 lbs.
CD-BP22012	220 VAC charger for CD-BP-12 battery pack	2 lbs.
CD-EC-10	10' extension cord with lighter plug	1 lb.
CD-BC-10	10' extension cord with battery clips	1 lb.
CD-RR-1	Rubber ring for 7" lenses, CL-12, CD-12, and FX series	1 lb.
CD-RR-46	Hypalon rubber ring for 6" diameter reflector	1 lb.
CD-RR-56	Hypalon rubber ring for 7 1/2" diameter reflector	1 lb.
CD-RF-56	Thin rubber ring for Pulsar 750 and Genesis 56	1 lb.
CD-RR-MAG	Rubber ring for CD-MAGNUM	1 lb.
CD-DMB-1	Dash mounting clip for Pulsar and Genesis handheld light unit	1 lb.
CD-DMB-CL	Dash mounting bracket for CD-CL-12, CD-MAGNUM, and Pulsar 750	1 lb.
CD-GEN-5B	7.0 amp hour Genesis 5 battery pack only, black	8 lbs.
CD-GEN-46B	Genesis 46 handheld unit only, black	2 lbs.
CD-GEN-56B	Genesis 56 handheld unit only, black	2 lbs.
CD-MC-110P	110 VAC Charger for Genesis	2 lbs.
CD-MC-12P	9' coiled cord for Genesis	1 lb.
CD-MC-220P	220 VAC charger for Genesis	2 lbs.
CD-MCR-M	Metal vehicle charger bracket for Genesis	3 lbs.
CD-NC-1200	220 Volt NC-1	6 lbs.
CD-RB-5	12 Volt Lead Acid Battery for Genesis 5 battery	7 lbs.
CD-IR-7"	7" infrared lens (rubber ring must be ordered separately)	1 lb.
CD-IR-8"	8.5" infrared lens for CD-MAGNUM, includes rubber ring	2 lbs.
CD-SS-60	Nylon Shoulder Straps with clips	1 lb.
CD-SWIVEL	Swivel pivot housing for FX bases	1 lb.

Replacement Bulbs		
Part Number	Description	Weight
CD-H1100W	12 Volt 100 watt H-1 base replacement bulb	1 lb.
CD-H155W12	12 Volt 55 watt H-1 base replacement bulb	1 lb.
CD-H170W24	24 Volt replacement bulb for Magnum	1 lb.
CD-H2100W	12 Volt 100 watt H-2 base replacement bulb	1 lb.
CD-H255W12	12 Volt 55 watt H-2 base replacement bulb	1 lb.
CD-H270W24	24 Volt replacement bulb	1 lb.
CD-H355W12	12 Volt 55 watt H-3 base replacement bulb	1 lb.
CD-P212W12	12 Volt 12 watt Bi-Pin Glass replacement bulb	1 lb.
CD-P225W12	12 Volt 25 watt Bi-Pin Glass replacement bulb	1 lb.

Switches		
Part Number	Description	Weight
KRM89086	Switch DPST for 220 Vac Light Fixtures	1 lb.
RM245100	2 position toggle switch for Knight Star and CD-FX-6	1 lb.
RM245088	3 position toggle switch for CD-FX-12 & CD-FX-9	1 lb.
RM245087	3 position rocker switch for CD-CL-12 & Genesis	1 lb.
RM245091	2 position rocker switch for CD-Magnum	1 lb.
RM245094	2 position momentary rocker switch for Pulsar 500 and CD-Magnum	1 lb.
RM245095	3 position momentary rocker switch for Pulsar 750 & CD-CL-12-M	1 lb.
KRM89088	Rubber switch boot for toggle switches	1 lb.
4G-245102	2 position illuminated rocker switch for Questar	1 lb.

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Kwik-Raze® Lighthead

Kwik-Raze® Poles and Mounts

Kwik-Strike™ 4000 Light

Collins Dynamics® Lights



By: Havis-Shields

INTERIOR LIGHTING

Kwik-Raze® Lighthead

Kwik-Raze® Poles and Mounts

Kwik-Strike® 4000 Light

Collins Dynamics® Lights

KR-CCL-1, -2, -3

COLD CATHODE COMPARTMENT LIGHT



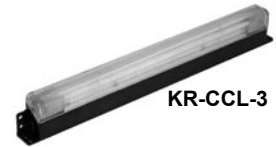
KR-CCL-1

Cold Cathode Compartment Surface Mount Light with 12" Lead and Switch (KR-CCL-1)



KR-CCL-2

Cold Cathode Compartment Surface Mount Light with Dual Wire Leads and Connectors (KR-CCL-2)

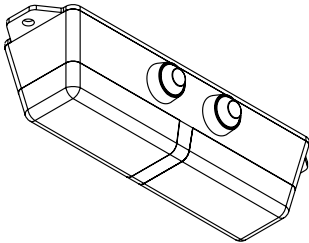


KR-CCL-3

Cold Cathode Compartment Surface Mount Light with no Switch (KR-CCL-3)

- Cold Cathode light perfect for roll-up door, interior cab and storage compartment applications
- Draws only 0.6A at room temperature, 1.6A max
- 18,000 hour lamp life
- Easy to retrofit
- Includes clear lens & self-tapping mounting screws
- 14" L x 1" W x 1.94" H

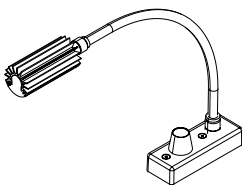
KR-DL



- Vehicle cab compact dome light
- Includes two clear & two red lenses
- Uses two individually switched 7 Watt, 12 VDC Xenogen® replacement lamp
- 5.75" L x 2.25" W x 1.38" H
- Also available in packages of twelve (12). Order part number: **KR-DL-12**



C-MAP-T

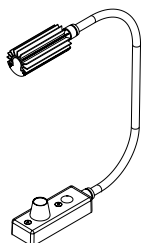


- 12" gooseneck halogen map light
- Top Mount
- Clear and red lenses included
- Available in bulk packages of 48 (part number: **C-MAP-T-48**)



1 lb.

C-MAP-S



- 12" gooseneck halogen map light
- Side Mount
- Clear and red lenses included
- Available in bulk packages of 48 (part number: **C-MAP-S-48**)



1 lb.

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POWER

Amps: Unit of current draw of a lamp. Sometimes referred to as amperage.

Volts: Unit of electric potential of a power source. Sometimes referred to as voltage.

Watts: \square c voltage and wattage. To figure out the current draw (amperage) of a light fixture, divide the total wattage by the rated voltage. For example, a 2,000 watt halogen lamp operating at 240 volts draws 8.33 amps. (2,000 watts / 240 volts = 8.33 amps)

EQUIPMENT

Lamp: A light sou \square voltage and wattage. HID and fluorescent lamps require a ballast to power the lamp, and cannot be connected directly to a power line.

Reflector: A device used to control the light output of a fixture by reflecting light rays in a specific direction. The shape of the reflector determines the direction of the reflected light. Reflectors are used for precise control of light output.

Diffuser: A device used to scatter light in many directions to reduce its intensity or smooth the pattern.

Ballast: An electrical device used with all gas-discharge lamps (HID, fluorescent, etc.) to control the lamp. A ballast normally works in conjunction with a starter (sometimes called an igniter) to light the lamp. After the lamp is lighted, the ballast works to regulate power to the lamp by limiting voltage and current dr \square

Voltage Regulator: A de \square 10-16 VDC as input, and supply a constant output of 12 VDC. Voltage regulators are used with some circuits to guarantee full light output and rated lamp life even if the input voltage is much higher or lower than the rated input value.

EMI/RFI Filtering: A d \square produced by all electrica \square interfere with other electrical equipment, such as Public Address systems and radios, that are installed on the same circuit. An EMI/RFI filter prevents such interference from occurring.

Light Fixture: A device that contains all components necessary to provide a useful lighting tool. At a minimum, a light fixture will include a lamp, reflector, ballast (if necessary), enclosure, and some form of mounting system. The formal name for a light fixture is a luminaire, and it is also sometimes referred to as a lighthouse.

PERFORMANCE MEASURES

Lamp Life: The lamp manufacturer's rating of average life expectancy, measured in hours. This rating does not take into account the application in which the lamp is used, nor does it consider manufacturing variations. Vibration, shock, the number of on/off cycles, and other application considerations can negatively affect lamp life for some types of lamps, such as incandescent and standard fluorescent.

Lumen: Weighted unit of the total amount of light emitted by a lamp. The lumen output of a lamp is a measure of the total quantity of light produced by the lamp, weighed at 5 \square

account for any color of light other than yellow. A lumen rating also does not take into account the design of the light fixture or effects of a reflector or lens. Since the lumen \square

Lighting illuminance calculations must take this into account, preferably by using effective lumens in all lighting comparisons and calculations. Due to manufacturing variations, any given lamp may vary in true lumen output by as much as 10-20% from its rated value.

Effective Lumen: Unit of the total amount of light emitted by a lamp, corrected for visibility. Rated lumens are a direct measure of yellow light, but in low lighting conditions, the human eye does not see yellow light well. The overall color of the light, measured by the color temperature, is used to correct the rated lumen value into an effective lumen value that more accurately reflects how well the human eye can see a specific light. A color temperature of about 4,500K is optimal for low-light visibility; either higher or lower color temperatures will reduce visibility. For example, it requires 50% more light at 2,70 \square

As a general guideline, lamps \square

approximate required lumen multipliers for a 1.6 fc nominal illuminance:

Color Temperature	Required Lumen Multiplier
2,700K	1.5
3,500K	1.2
4,500K	1.0
6,500K	2.2

continued...

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...continued

Candela: Unit of the amount of light produced by a light fixture, taking into account the reflector, lamp, and lens combined as a complete light fixture. Candela ratings are not units of illuminance because they do not take into account the distance of the light fixture to the surface being illuminated. Candlepower is a general term used to define the peak (candela) output of a light fixture, and is ordinarily applied only to spotlights.

Footcandle: Unit of intensity of light on a surface (illuminance.) One footcandle is defined as the illumination present on a surface exactly one foot away from a standardized candle. It is also defined as one lumen of light distributed over one square foot. Since the footcandle is a measure of illuminance, it will vary depending on the metric equivalent, lux.)

Color Temperature: Color temperature is a simplified way to characterize the color of a light source. It is measured in degrees Kelvin. True white is about 3,500K, lower is bluish. Sunlight is generally cool white; at noon it is about 5,500K. The human eye is much more sensitive to cool white light than warm white light under low light levels. The optimal color temperature for low-light visibility is 4,500K—either higher or lower values will reduce low light visibility.

Incandescent:	2,700K
Xenon Incandescent:	2,800K
Halogen:	3,000K
Metal Halide HID:	4,200K
Xenon HID:	4,200K
Cold Cathode Fluorescent:	4,500K
LED:	6,500K

LAMP TECHNOLOGIES

Halogen Lamp: An incandescent lamp technology. Incandescent lamps have a tungsten filament that is heated hot enough to glow and produce visible light. Halogen lamps are more efficient than non-halogen incandescent lamps. Most halogen incandescent lamps produce 2,700K to 3,000K warm white light.

Xenon Incandescent Lamp: An incandescent lamp technology. Like all incandescent lamps, these have a tungsten filament that is heated hot enough to glow and produce light. Xenon Incandescent lamps typically have characteristics of the lamp so it glows brighter and operates more efficiently than any other incandescent lamp. Xenon Incandescent lamps typically have much higher efficacy.

HID Lamp: High Intensity Discharge (HID) lamps have much longer life and much higher efficiency (efficacy, measured in lumens per watt) than most other lamp technologies.

Metal Halide Lamp: An HID lamp technology. HID lamps produce light by passing electricity through vaporized metal salts under high pressure. Metal halide is a specific type of HID lamp designed to produce the highest quality light in the most efficient manner, and like all HID lighting, metal halide lamps require a ballast to operate. Metal halide lamps produce light that is suitable for scene lighting.

Xenon HID Lamp: Another HID lamp technology. Xenon HID lamps produce light in a manner very similar to metal halide, and require a similar type of ballast to operate. Xenon HID lamps produce high-quality light almost as efficiently as metal halide, and are specifically designed to reach full brightness far more rapidly than any other HID source. Xenon HID lamps also can be relit almost instantly after being turned off. Most Xenon HID lamps are 5,000K to 6,000K, which is sub-optimal for low-lighting conditions. However, Havis-Shields Xenon HID lamps are rated at about 4,200K, so they are perfectly suited for low-lighting applications, such as scene lighting.

Cold Cathode Fluorescent Lamp: A fluorescent lamp technology. Unlike conventional (hot cathode) fluorescent lamps, Cold Cathode lamps have no pre-heated filaments. So, they have very long life, high durability, can be turned on and off an unlimited number of times, and are nearly impervious to vibration. Most fluorescent lamps do not work well in either hot or cold weather. However, Havis-Shields Cold Cathode lamps are specially engineered to allow for full rated life in all conditions. Cold Cathode lamps can be manufactured in various conditions.

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