



# AEROSTAR

TM

#### Owner's Manual & Installation Instructions



Made In USA



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#### NOTICE

Due to continuous product improvements, we must reserve the right to change any specifications and information, contained in this manual at any time without notice. Star Headlight & Lantern Co., Inc. makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Star Headlight & Lantern Co., Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection



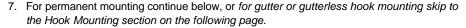
These lightbars contain one or more of the following light sources: Strobe Lights, Halogen Lamps, and/or High Intensity LED Lamps. DO NOT stare directly into any of these light sources as temporary blindness and/or permanent eye damage may occur.

#### MOUNTING INSTRUCTIONS

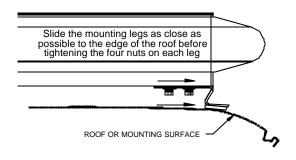
- 1. Please read all of the following instructions before continuing.
- Carefully remove the lightbar <u>and the direct mount kit</u> included with the bar from it's shipping carton. Place it on a clean, flat surface while taking care not to damage the lightbar or wiring cable. Examine the unit for any possible damage during transit.
- All lightbars come complete with the direct roof mount kit, for direct mounting to your rooftop. <u>Be sure to open both ends of the box when looking for the enclosed</u> direct mount kit.

For optional hook mounts, order the P/N which corresponds to your vehicle style from pages 12-13. An optional mag mount is available for stationary applications. Order part #177-BK-1.

- 4. Slide the eight enclosed stove bolts into the channels running underneath the lightbar. Use four stove bolts for each mounting bracket.
- Position one bracket on the four bolts at each end of the lightbar in the approximate locations to match up with the roof area where you will mount your lightbar. Be aware of your wire access to the lightbar when choosing the location of these brackets.
- After the bracket has been placed on the four stove bolts, install one flat washer, one lock washer, and one hex-nut on each stove bolt. Tighten hex nuts until snug, but loose enough that the mounting bracket can still slide for accurate pre-positioning.



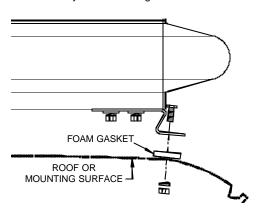
#### **DIRECT MOUNT**



- Carefully place your lightbar in position onto the roof of the vehicle while using the foot gasket or a pad to protect the roof from scratches. The tabs on the mounting brackets can be bent slightly to an angle that matches the curvature of the roof.
- 2. Slide the brackets as close to the edge of the roof as possible.
- Once the lightbar is in the correct position, level front to back and centered side-to-side, slide the mounting brackets into position and fully tighten hex nuts.

#### **DIRECT MOUNT** (continued)

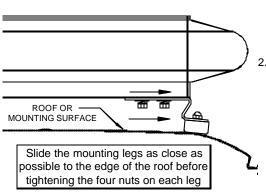
- 4. Using the mounting bracket feet as templates, mark the areas for the holes to be drilled. Take care to ensure that the bases do not move while you are marking each of the holes.
- Remove the lightbar, and drill holes in the roof of the vehicle. CAUTION: Take care not to drill through the headliner below. Remove any burrs.
- 6. Use the two foam gaskets attached to each leg. Place them between the leg and the roof of the vehicle. The gaskets will provide a barrier that separates the metal of the leg from the metal of the roof. It will also help absorb any excess vibration and provide a barrier against any leakage. Attach the lightbar and brackets to the vehicle using four suitable fasteners obtained locally. Skip to Wiring Instructions section on page 4.



#### **HOOK MOUNTING**

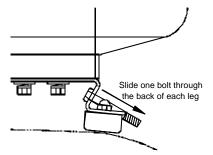
Please Note: The hook mounts are optional and are not included. Please refer to pages 12 and 13 for a diagram of the different mounts available and a complete list of known vehicle applications.

 Attach the molded rubber feet to the mounting brackets using the hex head bolts and cap nuts.

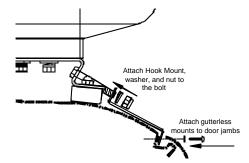


Place the lightbar on the vehicle roof and locate it in a position which is level front to back, and is centered side to side. Slide the bracket outwards so that the rubber feet are as close to the edge of the roof as possible.
 Tighten the hex nuts on the stove bolts to secure the mounting brackets in position.

3. Lift each end of the lightbar and insert the gutter bolts from the backside.



- 4. Install the hook mount, lock washer, and nut.
- 5. If you are installing a gutter hook, tighten the trim nut until secure. If it is a gutterless hook, tighten until the gutterless hook lip just touches the inside lip of the door jamb. Drill two holes and install the two sheet metal screws through the enclosed rubber washers to secure the gutterless hook on the inside lip of the door jamb. Then tighten the trim nut until secure.



<u>Do not over-tighten either mount!</u> It is not necessary to dimple the roof in order to achieve a secure, stable mount.

#### WIRING INSTRUCTIONS

All standard lightbar models are designed for 12 volt DC negative ground vehicles only. Reverse polarity will cause serious damage to the lightbar and/or vehicle. Contact the automotive dealer if there any doubts about the polarity of your vehicle. A 12 volt DC positive ground lightbar can be custom ordered, and it will be clearly labeled as such.

- 1. For quick and easy installation, 15 feet of cable is supplied standard with all models. All wires are color coded and sized at the correct gauge. If this length is not sufficient, it is recommended that wire connections be made directly at the terminal block inside the lightbar in order to reduce the number of wire connections and to avoid any weathering problems on these connections. Refer to the Direct Wiring Guide on page 6 for further instructions on this.
- 2. CAUTION: All wires should be rated for at least 125% of their maximum current load. All wires connected to the positive terminal of the battery should be fused at the battery for their rated load. The load can be calculated by adding all lamp wattages and dividing by 13. Load (Amps) = Total Watts / 13 volts. Do not use 1/4" diameter glass fuses, as they are not suitable for continuous duty above 20 amps. A table of recommended wire colors and wire sizes is provided on the following page.

### TESTING THE SYSTEM BEFORE IT IS PROPERLY FUSED & INSTALLED WILL VOID THE WARRANTY.

The black ground wire should be connected to a good chassis ground on the vehicle.
 This wire should be at least #10 AWG wire and be as short as possible in order to minimize the voltage loss in this wire and reduce any chance of overheating.

The correct wire size and color listed in the table on the following page corresponds directly with the wiring of the lightbar. All switches used should be rated for the maximum current load applied. Current load can be determined by adding all lamp wattages powered through the switch and dividing by 13. If you are unsure of the current draw please contact our Customer Service Department. Since switches rated for a very high continuous current are not very common, lightbars with high current draw may contain two wires of the same color exiting the base of the bar. If the switch being used is rated for a high enough current, these wires may be connected together and run through the same switch. Otherwise either two separate switches or one switch with two separate poles should be used.

#### **WIRE USAGE TABLE**

Minimum

† Separate Bundled 9-Conductor Cable

	IVI	ınımum
LIGHT(S)	WIRE COLOR	AWG
Neutral/Ground/-12 VDC	Black	10
Rotating Halogen Lights	Orange	14
360° Strobe or Strobe Power Pack	Red	14
Front Take-Down/Work Lights	Green w/Yellow Stripe	14
Rear Floods/Work Lights	White w/Orange Stripe	14
Left Alley Light	Light Blue	16
Right Alley Light	Gray	16
Right Alley Light Front Alternating Flashers	White w/Brown Stripe	16
Rear Alternating Flashers	White	16
Left Turn Signal	Yellow	16
Right Turn Šignal Tail Lights & ID Marker Lights	Green	16
Tail Lights & ID Marker Lights	Brown	18
Strobe Pack High/Low Control	Purple	18
+ Side to Siren (red on siren) - Side to Siren (black on siren)	Pink	18
- Side to Siren (black on siren)	Pink w/White Stripe	18
*Strobe Pack CTRL Wire #1	Red w/Green Stripe	22
*Strobe Pack CTRL Wire #2	Black w/Green Stripe	22
*Strobe Pack CTRL Wire #3	White w/Green Stripe	22
Alternate Strobe Pack PWR	Red w/Black Stripe	14
Auxiliary Power	Red w/White Stripe	14
Alternate Rotator	Orange w/Black Stripe	14
LED Optional Flash Pattern	Purple	18
LED Heads	Orange w/Red Stripe	18
Traffic Director	†	†

<sup>\*</sup> If you have a lightbar utilizing strobe technology, you will have three "Control" wires in your harness. These wires will control your flash pattern according to how they are connected. If they are not connected, your strobes will not work. Please refer to the chart below for proper connection of the control wires.

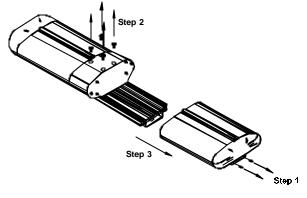
Harness Wire From CTRL Outlet Connected to +12 VDC		let	Model #246 Lightbar Power Pak Flash	
Red w/Green Stripe	Black w/Green Stripe	White w/Green Stripe	Characteristics	
-	-	-	No Flashing	
Х	-	-	Double Flash / L1 & L2 Alternate with L3 & L4	
-	Х	-	Two Heads Only - Quad Flash / L1 Alternates with L4	
Х	Х	-	Quad Flash / L1 & L2 Alternate with L3 & L4	
-	-	Х	Two-Heads Only - Quad Flash / L2 Alternates with L3	
Х	-	Х	Triple Flash / L1 & L2 Alternate with L3 & L4	
-	Х	Х	Quad Flash / L1 & L2 Alternate with L3 & L4	
Х	Х	Х	Five Flash / L1 & L2 Alternate with L3 & L4	

#### **Direct Wiring Guide**

(When more than the supplied 15 ft of cable are needed, follow these instructions to remove the pre-installed cable and install your own.)

Star recommends direct wiring to the terminal block on the inside of the lightbar if the wire supplied is too short, rather than making connections to (splicing onto) the end of the wire which is supplied. This lightbar is designed so that <u>no</u> wire connectors are needed and only a few common tools are necessary in order to do this. Direct wiring allows the wire connections to the lightbar to be made in a clean and dry environment, avoiding any problems which may arise due to weathering on external connections. There is also an increase in voltage loss with the addition of each connection. Wiring directly inside the lightbar reduces the number of connections. However, making connections to the wires already provided is an acceptable alternative, as long as these connections are good electrical connections and are resistant from we athering effects. For direct wiring into the lightbar, follow the instructions listed below.

- 1. Determine the number of wires which you will need to run. This can be done by counting the number of wires coming out of your lightbar.
- 2. Using the Wire Usage Table shown on page 5, identify your wires and select appropriate wire sizes and colors.
- 3. Locate the end of the lightbar which has the external wires entering the base of the lightbar. The black terminal block(s), which you will be making your wire terminations to, should also be located at this same end.
- 4. Remove the outer dome to expose the terminal block.



Step 1 : Remove the two screws holding the endcap to the lightbar base.

Step 2: Loosen the two screws which are holding the dome to the center divider section.

- **Step 3**: Slide the dome (with the attached endcap) off the end of the base exposing the interior components.
- **Step 4:** When all work is completed, reverse the steps to reinstall the dome, taking care that the gasket is properly aligned.
- 5. All of the wires coming from outside of the lightbar are terminated on the same side of the terminal block and the wires leading to the internal components terminate on the opposite side of the terminal block. Loosen the screws on the terminal block and remove only those wires which exit the lightbar through the hole in the base.
- 6. Run the new external wires up through the wire bushing into the base and into the terminal block(s). The function of each color wire in the lightbar is listed in the Wire Usage Table on page 5.

- 7. Align each external wire on the terminal block directly across from the corresponding internal wire with the same function. If there is more than one internal wire of the same color connected to the terminal block, align the external wire across from any one of that same color wire. Electrically, the same color wires are all connected.
- 8. Strip each wire 1/4". Connect the external wires to the proper poles of the terminal block by inserting the stripped portion of the wire under the rising clamp screw and tightening down the screw. No wire terminals are needed for connecting wires to this terminal block. Be sure to check that no strands of wire are loose and shorting to the adjacent terminal or to the base of the lightbar.

#### TROUBLESHOOTING GUIDE

WARNING!

CAUTION: High voltages exist in electronic strobe lights. Before attempting service on any strobe light, be sure to disconnect the power for at least five minutes to allow the capacitor to discharge. Failure to heed this warning may result in severe electrical shock and/or injury.

Please Note: Most strobe and rotating beacon failures can be traced to wiring and battery problems. Before attempting any service on the circuit itself, please be sure to check all connections and wiring to ensure the correct voltage and/or polarity is reaching your light or remote head.

The chart below contains some basic guidelines for troubleshooting any problems you may experience with your bar. The section following the chart will explain in further detail how to perform some of the troubleshooting tasks.

If a light on your bar fails to work, please refer to this section to help solve your problem. If you still cannot resolve your problem, please contact our **Customer Service Department** at 585-226-9787.

Symptom:	Possible Solutions		
One rotator spins but won't light up	Check bulb		
One rotator does not spin and	Check the power wire running between the rotator and the terminal block		
does not light up	Check the ground wire on the rotator		
More than one rotator does not	Check power to terminal block		
spin and does not light up	Check the ground		
One single LED light is Out	LED Head needs to be replaced		
One LED head does not flash	Check wiring between LED head and flasher unit		
	Check LED head		
Multiple LED heads not flashing	Check power to terminal block		
	Check that the bar is properly grounded		
	Check power from terminal block to LED flasher unit		
	Check that the LED flasher unit is grounded properly		
One flashing light out	Check bulb		
	Check power wire from flasher unit to bulb		
	Check that the bulb is grounded		
Multiple flashing lights out	Check power to terminal block		
	Check that the bar is properly grounded		
	Check power from terminal block to flasher unit		
	Check that the flasher unit is grounded properly		
One remote strobe head out	Check the strobe head		
	Check the cable from the remote pack to the strobe head		
Multiple strobe heads out	Check power to terminal block		
	Check power to strobe pack Power Outlet (PWR)		
	Check power to strobe pack Control Outlet (CTRL)		
	Check that the pack is properly grounded		

#### TROUBLESHOOTING GUIDE (cont'd)

#### Determining if the bar is properly grounded:

- While the bar is turned on, using a test meter, measure the voltage from the base of the bar itself to the negative post of the battery or a good chassis ground if the battery can't be easily reached. You may need to scrape away a bit of anodizing or paint in order to ensure a good connection with the probe of your test meter.
- 2. If the difference shown is greater than .25 volts, then your ground is not sufficient.
- 3. If the ground is insufficient, locate the ground wire connection in your lightbar by removing the dome over the section where the wires enter the bar. Please follow the appropriate dome removal instructions listed earlier in this manual when removing this dome. The ground wire is the large (10AWG) black wire attached to the inside of the lightbar base with a ring terminal. Check the integrity of the connection of the ground wire to both the lightbar base and at the other end to a good chassis ground.
- 4. While inspecting the ground wire connections you should also check that the wire itself is not damaged. Carefully inspect the wire along its entire length, paying special attention to those areas where the wire passes through any holes that may have sharp edges which can damage the wire and the areas where the wire makes any sharp bends.

### Checking the power to the terminal block (Determining if the proper voltage is reaching your bar):

- Locate the terminal block in your lightbar by removing the dome over the section where
  the wires enter the bar. Please follow the appropriate dome removal instructions listed
  earlier in this manual when removing this dome. After entering the bar, the wires will be
  connected to the terminal block with a number of small Phillips head screws.
- 2. With the bar turned on, use a test meter to test the voltage at the terminal block. A nominal 12.5 volts should be present. Low voltage can cause erratic flashing in strobe heads or even complete failure of the heads. A minimum of 9.5 volts should be present for the pack to operate properly. Low voltage in rotating lights, flashing light, or LED can result in lowered intensity or even complete failure.
- 3. Be sure to test each wire that comes into the terminal block for proper voltage.
- 4. Carefully inspect each wire in the terminal block. Check that the ends of the wires have not frayed and shorted against one another or against the base. This may cause lights to operate inadvertently or may result in the failure of lights.

#### Checking one non-working strobe head:

If a problem exists in only one head, a strobe tube may have burned out, or there may be an open electrical connection in the wiring harness or strobe head.

- Check connections at and between the strobe pack and the faulty strobe head, including all wiring.
- 2. Unplug both the faulty strobe head and a working strobe head.
- Check the faulty head by plugging it into the outlet you just unplugged the working head from. If the faulty head still does not work, then the head is bad and will need to be replaced.
- 4. If the head which was not flashing now works in the new outlet, the problem probably lies in the power pack. Verify this by plugging the other head (the original working head you just unplugged) into the outlet which previously had the non-working head.

#### Checking multiple non-working strobe heads:

If two or more of the heads connected to one of the packs are not flashing, follow these steps to determine the problem:

- 1. Check the power to the terminal block as explained above.
- 2. Check that the bar is grounded properly as explained above.

#### TROUBLESHOOTING GUIDE (cont'd)

Checking multiple non-working strobe heads (continued)

- 3. Check all fuses, including those at the battery, at the switch panel, in the dash, and on the pack (if applicable). Remove these fuses, and check them to confirm they have not blown. The RP906 has a fuse located inside the cover. There is an access panel in the upper left hand corner of the cover, which can be opened by removing the two screws holding it in place. Using long needle nose pliers, grasp the fuse and remove it for inspection. Replace any blown fuses with only fuses of identical values. Replacing the fuse with the wrong rating may damage your pack and/or vehicle, and will void your warranty.
- 4. Check that the proper voltage is reaching the pack. With the vehicle turned off and while the bar is running, measure the voltage across the red wire (pin 1) and the black or blue wire (pin 2) of the PWR connector on the power pack. Push the probes of the test meter down into the connector at the wire entry points to contact the terminals for the measurement. Note this reading. A nominal 12.5 volts should be present. Low voltage to the pack can cause erratic flashing in the heads or even complete failure of the heads. A minimum of 9.5 volts should be present for the pack to operate properly. If you do not have proper voltage present skip to step 7. If your pack is receiving sufficient voltage then continue to step 5.
- 5. For power packs with CTRL outlet: Check that the proper voltage is reaching the necessary CTRL inputs. With the vehicle turned off and while the lightbar is running, measure the voltage across the black wire (pin 3) of the PWR and any of the wires of the CTRL connector which need to have power applied to them for your desired flash pattern. Push the probes of the test meter down into the connector at the wire entry points to contact the terminals for the measurement. Note this reading. A nominal 12.5 volts should be present. A minimum of 9.5 volts should be present for the pack to operate properly. If you do not have proper voltage present skip to step 7. If your pack is receiving sufficient voltage then continue to step 6.
- 6. If the leads in one of the heads have shorted out, the output voltage of the other heads may be held down as well. To test for this, unplug all of the heads and plug them in individually, one at a time. If your problem is a result of a shorted head, then the other heads should function properly if the faulty head is no longer connected. Note: A burned out strobe tube does not cause a short and will not affect the operation of the remaining heads. If the problem is not with a shorted head and if proper voltage is reaching the pack, the problem is most likely internal to the pack. Call Star to obtain an R.G.A. number to return the pack for service.
- 7. If sufficient voltage is not reaching the pack perform the following tests: With the vehicle turned off and while the pack is running, measure the battery voltage at the battery. A nominal 12.5 volts should exist. Note this voltage. If this voltage is below 10.0 volts the pack will not function properly and the problem is with the battery. This reading should not be more than 1-1.25 volts higher than the reading in the 4<sup>th</sup> step. If there is an excessive difference then continue on to the next step
- 8. With the vehicle not running and the lightbar on, measure the voltage in the red wire by taking a reading from the positive side of the battery to pin 1 of your switch. If this reading exceeds 0.25 volts then there is a poor connection between the switch and the battery in the red wire and it should be checked.
- 9. If you still have not located the problem, troubleshoot the connections between the good chassis ground and pin 2 (black or blue wire) of the **PWR** connector on the power pack, while the lightbar is running. If this reading exceeds 0.25 volts then there is a poor connection between the switch and the ground in the black wire and it should be checked.
- 10. This same procedure can be used to check the wires between the terminal block and the pack. Place one probe on the terminal at the terminal block and the other probe into the terminal with the corresponding wire color in the **PWR** connector on the pack. Once again if any of the readings exceed 0.25 volts then you should check those wires and their connections.

#### ALROSTAR TM PARTS LIST

#### **Bulbs and Tubes**

4.5" Linear Strobe Tube	LST129-4
7" Linear Strobe Tube	LST129-7
360° Strobe Head	ST3901-7
50-Watt Halogen Bulb	2073-795
(For Rotators and Takedowns)	
Metal Alley Light Bulb	2073-795S
Plastic Alley Light Bulb	2073-H27
Stop/Turn/Tail	2073-1157

#### Components

7" Linear Strobe Head (less tube)	SH3967
4.5" Linear Strobe Head (less tube)	SH3964
Starblast™ LED Head	LDH3966-*
Standard (95FPM) Rotator	920-99
High-Speed (150FPM) Rotator	920-99F
Stationary Worklight/Takedown	920-51
Stop/Turn/Tail	920-32†
Metal Alley Light	620-50
Plastic Alley Light	620-14
Small "V" Mirror	620-29
Wall Mirror	620-30
Centerpiece ID/Marker 3-Light Strip	620-38
Triple ID Light Bracket for Extrusion	620-36
Single ID Light for Triple Extrusion Bracket	920-37
620-36 with 3 (920-37) ID Lights	620-38-1

#### Power Supplies/Flashers 2-Head Strobe Power Supply

2-Head Strobe Power Supply	620-181-SBQ
4-Head Strobe Power Supply	RP246
Standard (1.9FPS) Flasher	FM3661
High-Speed (2.9FPS) Flasher	FM3662
LED Flasher	LDF399
Mounting Brackets	

Mounting Brackets	
Permanent Mount	920-39
Low Profile Tow Mount	920-39T
Magnetic Mount	177-BK-1
Hook Mounts	These are pictured on pa

12 and work in conjunction with the 920-39

#### Domes, Filters, and Lenses

12" Center Dome Section	620-22-12-*
16" Center Dome Section	620-22-xxxx
End Cap	620-23-*
End Cap w/Alley Light Window	620-23C/O-
Window for Domes or Endcap	620-7
Rotator Filter	920-100-*
Stationary Filter	920-100-*
(Worklights, Takedowns, Flashers, etc.)	
4.5" Linear Strobe Filter	LSF4.5-*
7" Linear Strobe Filter	LSF7-*
Dome for 360° Strobe Head	333-*

#### Centerpieces

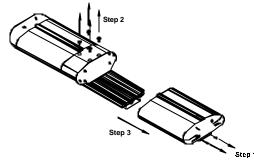
-	(Chrome or Black)
8" Speaker Centerpiece	2009 or 2008
12" Speaker Centerpiece	2012 or 2013
16" Speaker Centerpiece	2016 or 2017
2-3/8" Chrome Band	2003 or 2004
4" Metal Band	2011 or 2014
8" Metal Centerpiece	2007 or 2007B
12" Metal Centerpiece	2015 or 2015B
16" Metal Centerpiece	2010 or 2010B
16" Metal Centerpiece w/ID Holes	2010M
Baffle	620-12

#### Screws and Bolts. Misc.

Centerpiece Screws (Top)	30052-18
Centerpiece Screws (Bottom)	30052-18
End Cap to Extrusion Screw	30054-23
Endcap to Dome Screw	30052-19
Threaded Nut Insert	300168-4
Bulkhead/Baffle Screw	30053-30
Gasket (per foot)	30047-58

\* = color (A,B,C,G, or R)† = Specify Left or Right (L or R)

#### **DOME REMOVAL**



Step 1: Remove the two screws holding the endcap to the lightbar base.

Step 2: Loosen the two screws which are holding the dome to the center divider section.

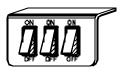
Step 3: Slide the dome (with the attached endcap) off the end of the base exposing the interior components.

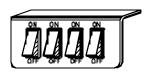
Step 4: When all work is completed, reverse the steps to reinstall the dome, taking care that the gasket is properly aligned.

### **SWITCH PANELS AND SWITCH BRACKETS**









SP3860-1 SP3860-2 SP3860-3

SP3860-4



SP1515



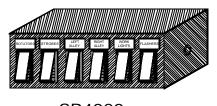
SB1515



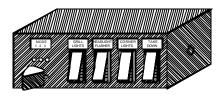
SP3015



SB3015



SB4020



SB4040

## **Hook Mounts**

920-35C	920-35CVLP	920-35F	920-35I
	<b>*</b> .		
	1-1-1-1-1	7	<i>\\</i>
2	·		1
920-35C5	920-35CTB	920-35GM	920-35INT
		LONG LEG	
	)		3
920-35	920-35RAM2	920-	-35IZ
		A	
7			
920-35EX	1		
	920-35-S105		
	920-33-3103		
920-35D			
	OFFSETLEG		$\mathcal{I}$
The state of the s	4		
		B/26/04	l

### **Hook Mount Applications**

	1		
<u>Make</u>	<u>Model</u>	<u>YEAR</u>	MOUNT
CHEVROLET	C/K Pick Up	1999-2004	920-35-S105
CHEVROLET	C/K Pick Up 2500_3500	2001-2004	920-35-S105
CHEVROLET	Camaro	1984-1992	920-35
CHEVROLET	Caprice	1988-	920-35C5
CHEVROLET	Caprice	1988-1994	920-35C
CHEVROLET	Caprice	1977-1990	920-35
CHEVROLET	Cavalier Z-24	1990-1994	920-35
CHEVROLET	Impala	2000-2004	920-351
CHEVROLET	Lumina	1997	920-35GM
CHEVROLET	Lumina	1998	920-35C
CHEVROLET	R/V Chassis-Cab	1990-1991	920-35
CHEVROLET	R/V Series	1990-1991	920-35
CHEVROLET	S-10	1995	920-35-S105
CHEVROLET	Suburban	2000-2004	920-35-S105
CHEVROLET	Suburban	1990-1991	920-35
CHEVROLET	Tahoe	200-2004	920-35-S105
CHEVROLET	Tahoe	???	920-35-S105
CHEVROLET	Trailblazer	2002-2004	920-35CTB
CHEVR OLET	Trucks	1980-1987	920-35C5
CHEVROLET	Trucks	1988-1994	920-35GM
CHEVROLET	Van (Cargo)	1999	920-35C
CHEVROLET	Van (not Astro)	1988-1995	920-35
	Caravan/Grand		
DODGE	Caravan	???	920-35C
DODGE	Dakota _	1997-2004	920-35GM
DODGE	Durango	1996-2004	920-35GM
DODGE	Durango	2004	920-35-S105
DODGE	Full Size Vans	1989	920-35
DODGE	Intrepid	1996	920-35INT
DODGE	Intrepid	1998-2004	920-35GM
DODGE	Intrepid	1999-2004	920-35F
DODGE	Ram	1991	920-35
DODGE	Ram	1995	920-35C
DODGE	Ram	1995-1998	920-35-S105
DODGE	Ram	1999-2001	920-35D
DODGE	Ram (Quad cab)	1999-2001	920-35GM
DODGE	Ram pickup (2-Wrap Around Doors)	1994-1998	920-35CTB
DODGE	Ram pickup	1994-1998	920-35F
DODGE	Ram pickup	2003-2004	920-35RAM2

<u>Make</u>	<u>Model</u>	YEAR	MOUNT
FORD	Bronco	1995	920-35F
FORD	Crown Victoria	1988-1994	920-35C5
FORD	Crown Victoria	2000-2004	920-35CVLP
FORD	E-Series(Van)	1987-2004	920-35
FORD	Excursion	2000-2004	920-35GM
FORD	Expedition	1997	920-35EX
FORD	Expedition	2003	920-35EX
FORD	Expedition	2004	920-35F
FORD	Explorer	2000	920-35
FORD	Explorer	2000-2004	920-35D
FORD	F-250	1991	920-35C
FORD	F-250	1991	920-35C5
FORD	F-350	2000	920-35
FORD	F-Series	1987-1996	920-35
FORD	F-Series	1988-1995	920-35F
FORD	F-Series	1997	920-35D
FORD	F-Series	1998-2001	920-35D
FORD	F-Series	1998-2004	920-35GM
	F-Series (250,		
FORD	350, 450, 550)	1998-2004	920-35GM
FORD	LTD-Crown Vic	1988-1991	920-35
FORD	LTD-Crown Vic	1992-2004	920-35CVLP
FORD	Mustang	1988-1993	920-35
FORD	Ranger	1987- 1992 1997	920-35
FORD	Ranger	1999-2000	920-35GM
FORD	Ranger	2002-2004	920-35GM
FORD	Windstar	1999-2001	920-35GM
GMC	Envoy	2002-2004	920-35CTB
GMC	GMC Truck	1988-1994	920-35GM
GMC	GMC Truck	1995-2000	920-35-S105
GMC	Jimmy (full size)	1990-1991	920-35
	Heavy Duty		
ISUZU	Truck Chassis	1998-2004	920-35IZ
JEEP	Jeep Cherokee	1990-1994	920-35
JEEP	Jeep Cherokee	1995-2001	920-35
JEEP	Jeep Cherokee	1995-2001	920-35GM
JEEP	Jeep Grand Cherokee	1999-2004	920-35GM
V-L1		.000 2004	320 300141
JEEP	Jeep Liberty	2002-2004	920-35GM
PLYMOUTH	PT Cruiser	2000-2004	920-35GM
PONTIAC	Grand Prix	1994	920-35GM

#### ONE YEAR LIMITED WARRANTY

The manufacturer warrants each new product, under normal use, against factory defects in material and workmanship for one year after the date of purchase. The owner will be responsible for returning to the Service Center any defective item(s) with the transportation costs prepaid. The manufacturer will, without charge, repair or replace at its option, products, or part(s), which its inspection determines to be defective. Repaired or replacement item(s) will be returned to the purchaser with transportation costs prepaid from the service point. A copy of the purchaser's receipt must be returned with the defective item(s) in order to qualify for the warranty coverage.

Exclusions from this warranty include, but are not limited to, bulbs, strobe tubes, domes, and/or the finish. This warranty shall not apply to any light, which has been altered, such that in the manufacturer's judgment, the performance or reliability has been affected, or if any damage has resulted from abnormal use or service. This warranty does not apply to defect or damage occurring as a result of disaster, accident, abuse, misuse, lightning, power surges, or failure to follow instructions in any enclosed manuals. Any damage or defects occurring as a result of any unauthorized service or repairs by unauthorized persons shall be excluded from this warranty.

There are no warranties expressed or implied (including any warranty of merchantability or fitness), which extend this warranty period. The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages, including costs of any labor, are not covered. The manufacturer reserves the right to change the design of the product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights. You might also have additional rights which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts. Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitation(s) or exclusion(s) may not apply to you.

If you have any questions concerning this or any other Star product, please contact our **Customer Service Department** at (585) 226-9787.

If a product must be returned for any reason, please contact our Customer Service Department to obtain a Returned Goods Authorization number (RGA #) before you ship the product to Star. Please write the RGA # clearly on the package near the mailing label.

