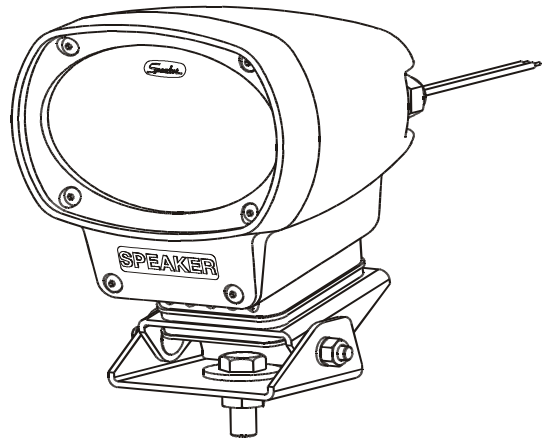


Model 9710 (35 Watt; 12-Volt DC)
Model 9720 (35 Watt; 24-Volt DC)
HID Lighting System



WARNING

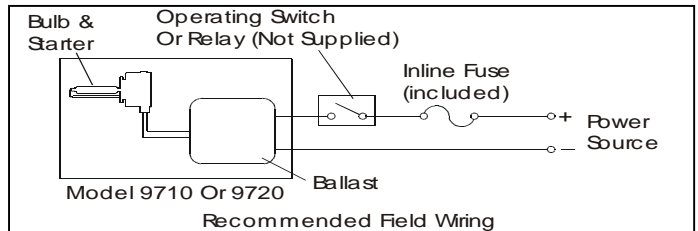
Hazardous Voltage Inside. To Prevent Accidental Shock Remove Power And Wait (5) Minutes Before Servicing. Failure to Comply Could Result In Serious Injury .

WIRING REQUIREMENTS

The HID lighting System comes with approximately 30" of wire exiting the lamp assembly. J.W. Speaker recommends keeping the wire length as short as practical and running separate wires to each lamp to minimize voltage losses in the wires. If this is not possible, heavier wire should be used to insure trouble-free operation. An in-line fuse assembly is also included. J.W. Speaker strongly recommends using this fuse to protect the vehicle wiring from damage. From the power source to the lamp, the wire gauge will vary based on the minimum/maximum voltages of the host equipment and the length of wire from the power source to lamp. Most applications can use 18 gauge wire up to 15 feet long. If your application requires greater distance, 16 gauge or heavier wire should be used. For more specific recommendations, consult a qualified service representative. Be sure the wire sheathing is correct for the operating environment.

WIRE DIAGRAM:

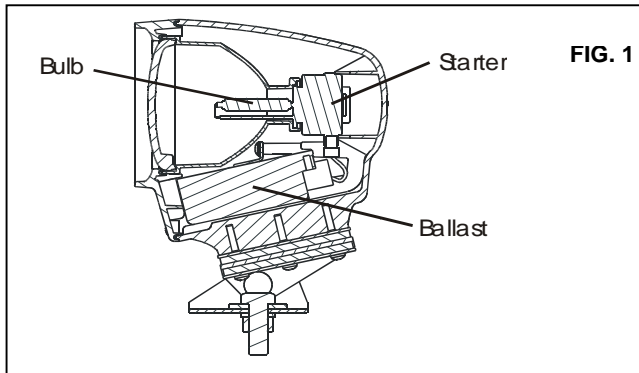
The following wiring diagram is suggested for trouble free operation of the unit. The HID system requires correct wiring polarity. The positive connection must be made to the red wire and the negative to the black. Reversing the polarity will not damage the unit but it will not operate.



THEORY OF OPERATION

High Intensity Discharge (HID) lighting describes a type of light source producing light energy by means of an arc sustained within a gaseous enclosure. This system is comprised of three (3) major components:

- The bulb which contains the environment and houses the arc;
- The starter (located on rear of bulb) which boosts the voltage from the ballast to create the arc in the bulb; and
- The ballast which provides high voltage to the starter.



Major advantages of HID lighting are high color temperature producing a brilliant white light and extended service life due to the absence of a wire filament. These features lend themselves to applications requiring extended use and severe conditions. HID provides the user several times the output of incandescent or halogen lamps using the same levels of input energy.

GENERAL OPERATION:

The Speaker HID Light System is designed for heavy duty, long life applications. When input power is introduced to the ballast system, an arc is struck in the bulb between two contacts. Although HID offers extra long service life, frequent re-striking (on/off) of the arc will shorten bulb life. Once the arc is struck, it is preferable to leave the lamp on until it is no longer needed. If a voltage disturbance extinguishes the arc, the system will shut down to protect the lamp. If this occurs, you should remove power from the lamp to allow a reset and then reapply power. Normal operation will resume. If lamp operation is controlled by a switch or relay (not supplied), a minimum contact rating of 20 Amp tungsten is recommended due to the current in-rush at lamp start-up. Failure to adequately size will damage and/or shorten the life of the switch.

Keeping the lens of the lamp clean of mud, paint, debris, etc. will also extend the life and performance. Debris on the lens could cause damage due to trapped heat. Damage of this type is not covered under the warranty and can be prevented by simple cleaning with mild soap and water.

INSTALLATION

The HID lighting System consists of a lamp assembly with an internal ballast. This assembly must be securely mounted to a stable operating surface.

WARNING

The HID bulb contains gas under pressure and could shatter. Protect bulb against abrasions, scratches and liquids. Do not touch the glass envelope. Operate bulb only in a lamp assembly. Replace if damaged or cracked. Wear eye protection when handling. Disconnect power before removing.



WARNING



Disconnect input power to ballast before servicing unit

TROUBLESHOOTING CHART

Problem	Inspect/Possible Cause	Solution
Unit does not light	HID Internal Protection Circuit	Remove power from HID system. Wait 30 seconds and reapply power
	Check in-line fuse	Replace fuse
	Check wiring polarity	Unit must be wired positive to the red lead and negative to the black lead
	Check electrical connections and cords	Replace if damaged
	Low/no voltage input to unit	Repair or replace defect in input system
	Beam burned out	Disconnect power; replace beam; reconnect power; attempt re-start
	Ballast Failure	Disconnect power; replace ballast assembly; reconnect power; attempt re-start
Arc strikes but will not sustain	Check input current (see specifications)	Repair or replace defective input system
	Beam burned out	Disconnect power; replace beam; reconnect power; attempt re-start

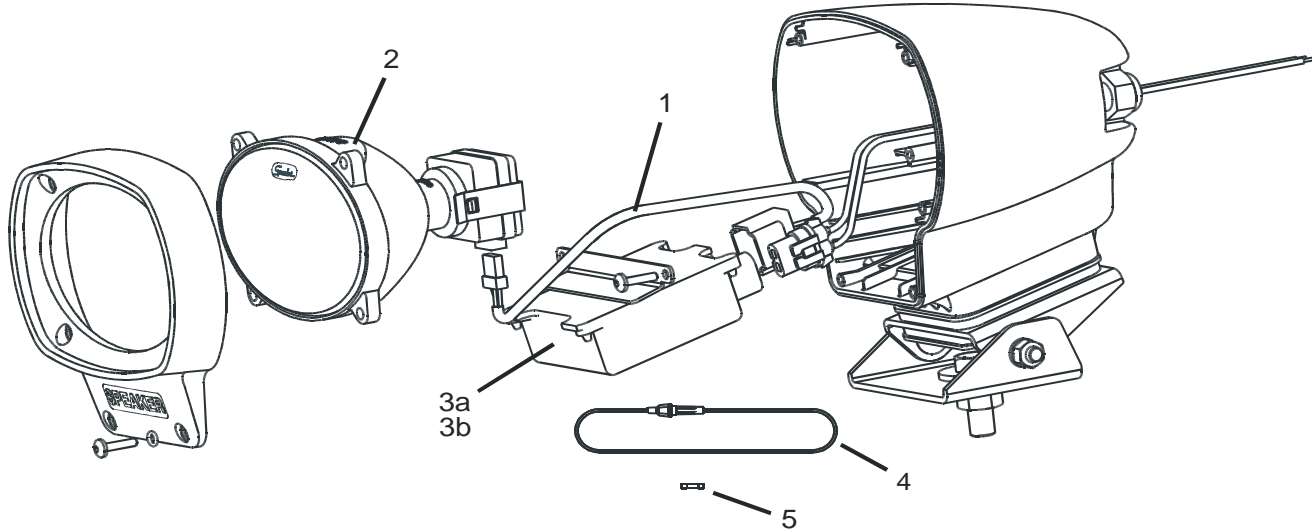
WARRANTY PROCEDURE: Contact your dealer for all warranty claims. All components must be returned for warranty claims on systems purchased as complete assemblies (see Parts List for items tagged "complete"). Components purchased separately (items 1-5 on the Parts List) may be individually returned.

ONE YEAR WARRANTY: All Speaker products sold hereunder are warranted to resellers and commercial industrial users for one (1) year from date of purchase against defects in material and workmanship. Products found to be defective during the warranty period will be repaired or replaced (at Speaker's option) without charge. The defective product must be returned transportation prepaid with proof of date of purchase to J.W. Speaker Corporation, Service Dept., W185 N11315 Whitney Drive, Germantown, Wisconsin 53022. The repaired or replaced product will be returned to the purchaser with transportation prepaid by Speaker. Contact the factory for a Return Goods Authorization (RGA).

This warranty does not cover removal or installation costs, or products subjected to misuse, neglect, accident, improper installation, or use in violation of instructions furnished by Speaker. This warranty is Speaker's exclusive obligation with respect to products sold hereunder. NO OTHER WARRANTIES OF ANY KIND ARE MADE, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Under no circumstances shall Speaker be liable for incidental or consequential damages of any kind arising out of the sale or use of any Speaker product.

SYSTEM SPECIFICATIONS

Series 9700	Ballast Input Voltage	Maximum Amp Draw	Ambient Operating Temperature	Bulb Identifier	Output (lumens)	Color Temp	Fuse Specifications
Model 9710 (35-Watt, 12 volt) System	9-16 VDC	20A Max (initial) 3.18A max (steady state)	-40 to 85C	D1S (35W)	3200 lm	4100° K	20 Amp Slow Blow (BUSS MSD-L)
Model 9720 (35-Watt, 24 volt) System	18-32 VDC	10A Max (initial) 1.59A Max (steady state)	-40 to 85C	D1S (35W)	3200 lm	4100° K	20 Amp Slow Blow (BUSS MSD-L)



PARTS LIST

Item	Part Number	Description	Item	Part Number	Description
Complete	1700981	HID Lighting System, 12 Volt Flood	2	3150831	HID Beam, 12-24 Volt, Flood
Complete	1700991	HID Lighting System, 12 Volt Trap	2	3150811	HID Beam, 12-24 Volt, Trap
Complete	1701001	HID Lighting System, 12 Volt Spot	2	3150821	HID Beam, 12-24 Volt, Spot
Complete	1701011	HID Lighting System, 24 Volt Flood	3a	6600311	Ballast Assembly, 35W 12V
Complete	1701021	HID Lighting System, 24 Volt Trap	3b	6600321	Ballast Assembly, 35W 24V
Complete	1701031	HID Lighting System, 24 Volt Spot	4	3150801	Fuse Assembly
1	3254371	Wire Harness	5	7147290	Fuse, 20 Amp Slow Blow

J.W. Speaker Corp. N120 W19434 Freistadt Rd Germantown, WI 53022-0489 USA

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INSTRUCTION SHEET - Part #6542110 Rev E. 01-29-2016