

# Ballasts-to-Lamp Remote Mounting Distances

## Ignitors

Ballasts that include an ignitor to start the HID lamp are limited in the distance which they may be mounted remotely from the lamp because the ignitor pulse attenuates as the wire length between the ballast and lamp increases. All Philips Advance open core & coil ballasts listed in this Atlas include a **standard ignitor** that provides the proper electrical pulse to start lamps when the ballast is mounted **within** the lighting fixture. For most of these ballast/ignitor combinations, the maximum ballast-to-lamp distance is listed as 2 feet. For ballast-to-lamp distances greater than the capability of the standard ignitor, a **long range ignitor** is required.

Use the tables on the following pages to find the proper long range ignitor for various metal halide and high pressure sodium ballasts. Not all ballasts listed in the Atlas have long range ignitor options. It may be necessary to use a ballast employing a different circuit to achieve the needed ballast-to-lamp distance.

Whichever ignitor is used, it must be installed with and adjacent to the core & coil, as the two components work together to deliver the proper pulse to the lamp. When remote mounting the ballast away from the lamp, the ignitor must be located next to the ballast and not next to the remote lamp in order to utilize the full ballast to lamp distance range. If the ignitor is located next to the remote lamp, the usable ballast to lamp remote mounting distance will be cut in half.

## Metal Halide Ballasts

The distances at which most Metal Halide ballasts can be located from their respective lamps are limited by the ballast-to-lamp wire size. The exceptions being the ballasts for the new, lamps which require an ignitor for starting. The mounting distances for these are limited by the ignitor as shown on the following page.

Use this chart to determine the minimum wire size required for the Metal Halide (not requiring an ignitor) lamps shown:


Lamp		Maximum One-Way Length of Wire between Lamp and Ballast (ft) (Voltage Drop Limited to 1% of Lamp Voltage)				
Wattage	Metal Halide	#10	#12	#14	#16	#18
175	M57	425	265	165	105	65
250	M58	300	190	120	75	45
1-400 or 2-400	M59	200	125	75	50	30
1000	M47	325	205	125	80	50
1500	M48	225	140	85	55	35

# MAGNETIC HID BALLASTS

## Ignitor Specifications (Case Temperature Rating 105°C)

### Metal Halide



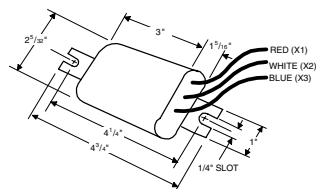
Metal Halide							Long Range Ignitor			
Ballast Data				Standard Ignitor						
Philips Advance Ballast Family	Lamp Watts	ANSI Code	Ballast Circuit Type	Catalog Number	Max. Dist. (ft.) To Lamp	Case Type	Catalog Number	Min. Dist. (ft) To Lamp	Max. Dist. (ft) To Lamp	Case Type
71A5005	35	M130	HX	LI533-H4-IC	15	Round	<b>XTENZA® Long-Range Ignitor</b> - Meets ANSI pulse requirements for all ballast to lamp distances from 0 to 50 ft. - Features 105°C case temperature rating - See Ordering Information Below  <b>LI533-LR1   0 - 50 ft   Oval</b>    <b>LI533-LR   0 - 50 ft   Oval</b>  <b>LI533-LR3★   0 - 50 ft   Oval</b>			
71A5105	50	M110/148	HX	LI533-H4-IC	15	Round				
71A51_1	50	M110/148	HX	LI533-H4-IC	10	Round				
71A5137	50	M110/148	R	LI533-H4-IC	2	Round				
71A5205	70	M98/143	HX	LI533-H4-IC	25	Round				
71A52_2	70	M98/143	HX	LI533-H4-IC	15	Round				
71A5237	70	M98/143	R	LI533-H4-IC	10	Round				
71A52_1	70	M139	HX	LI533-H4-IC	10	Round				
71A53_0	100	M90/140	HX	LI533-H4-IC	20	Round				
71A5383	100	M90/140	CWA	LI533-H4-IC	2	Round				
71A5337	100	M90/140	R	LI533-H4-IC	2	Round				
71A54_2	150	M102/142	HX	LI533-H4-IC	10	Round				
71A5437	150	M102/142	R	LI533-H4-IC	2	Round				
71A55_3	175	M137/152	SuperCWA	LI533-H4-IC	2	Oval				
71A56_2	200	M136	SuperCWA	LI533-H4-IC	2	Round				
71A56_3	200	M136	SuperCWA	LI533-H4-IC	5	Round				
71A57_2	250	M138/153	SuperCWA	LI533-H4-IC	5	Round				
71A58_2	320	M132/154	SuperCWA	LI533-H4-IC	2	Round				
71A59_3	350	M131	SuperCWA	LI533-H4-IC	2	Round				
71A60_2	400	M135/155	SuperCWA	LI533-H4-IC	10	Round				
71A61E6	400	M135/155	SuperCWA	LI533-H4-IC	2	Round				
71A63_3	450	M144	Super CWA	LI533-H4-IC	5	Round				
71A64_0	750	M149	SuperCWA	LI573-H5-IC	15	Oval				
71A64_2	750	M149	SuperCWA	LI573-H5-IC	15	Oval				
71A64_8	875	M-166	SuperCWA	LI572-H5-IC★	10	Oval				
71A65_1	1000	M141	SuperCWA	LI572-H5-IC★	10	Oval				
71A65_3	1000	M141	SuperCWA	LI571-H5-IC★	5	Oval				
71A50_5	35	M130	HX	LI533-H4-IC	15	Round	LI561-H5★	15	50	Oval
71A5081	35	M130	HX	LI533-H4-IC	15	Round	LI561-H5★	15	50	Oval
71A5037	35	M130	R	LI533-H4-IC	10	Round	LI561-H5★	10	50	Oval
71A52_0	70	M85	HX	LI522-H5-IC★	30	Oval	Not Available			
71A54A3	150	M102/142	SuperCWA	LI501-H4-IC★	15	Round	Not Available			
71A54_0	150	M81	HX	LI522-H5-IC★	20	Oval	Not Available			
71A5486	150	M81	CWA	LI523-H5-IC★	2	Oval	Not Available			
71A5880	250	M80	HX	LI522-H5-IC★	5	Oval	Not Available			
71A86_5	750	**	CWA	LI561-H5-IC★	5	Oval	Not Available			

★ Equipped with an auto-rest thermal protector to help prevent ignitor from overheating in the event of lamp failure

### XTENZA Ordering Information

To order in bulk, specify item no. LI533-LR, LI533-LR1 or LI533-LR3. For individual carton, add -IC to item no.

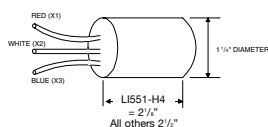
XTENZA is also available packaged with the ballasts shown at right.



Oval Case

Lamp Watts	ANSI Code	Ballast Number	No Bracket	With Welded Bracket
70	M98/143	71A5292	-900D	
100	M90/140	71A5390	-900D	

### Round Case



**CC125**  
MOUNTING CLIP for Round Case  
(Furnished as standard with -001 suffix ballasts and all -IC suffix replacement ignitors.)

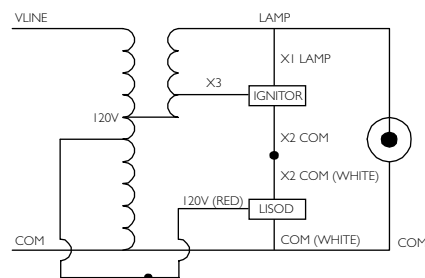
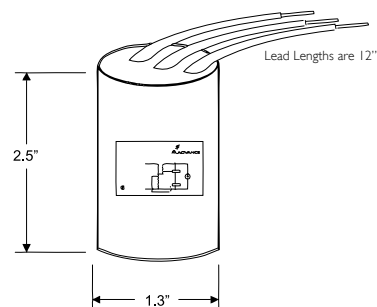
## LISOD

The Philips Advance shut-off device (LISOD) enhances the reliability of High Intensity Discharge (HID) lighting systems where ignitors are utilized to start the HID lamps. This includes all high pressure sodium lamps as well as all low, medium, and high wattage pulse-start metal halide lamps. The LISOD shut-off device is used in addition to a standard ignitor.

The LISOD shut-off device increases the life of the ignitor by disabling it from the circuit and eliminating any concern over long-term ballast reliability due to continuously pulsing ignitors when a lamp is burned out. The LISOD provides a simple solution to eliminate lamp cycling typically associated with lamps that have reached their end of life. The LISOD disables the ignitor after 15 minutes of pulsing in cases when lamp is taken out of socket or lamp fails to ignite.

- Compatible with any Philips Advance Reactor (R), High-Reactance (HX), and Constant Wattage Autotransformer (CWA) ballast and ignitor circuit that includes a 120V input tap.
- Integral timer automatically disables ignitor from ballast circuit 15-minutes after power is applied to the ballast
- Extends ignitor life, which is typically rated for 10,000 hours of continuous pulsing
- Protects ballast coil insulation from potential damage due to a continuously pulsing ignitor
- Prevents cycling of end-of-life lamps making identification for lamp replacement easy
- Automatically resets/restarts itself after 0.6 second of power interruption (voltage dropout)

Catalog Number	Description	Quantity Per Carton
LISOD1-IC	Ignitor shut-off device for HID CWA, HX, and R ballasts with ignitors. Individual carton packaging	1
LISOD1	Ignitor shut-off device for HID CWA, HX and R ballasts with ignitors. Bulk packaging	50



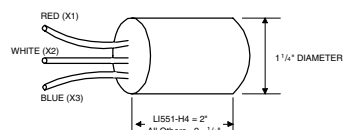
# MAGNETIC HID BALLASTS

## Ignitor Specifications (Case Temperature Rating 105°C)

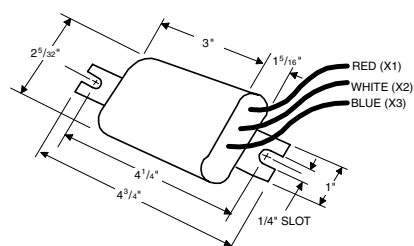
### High Pressure Sodium



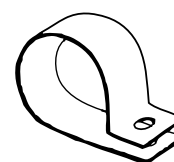
High Pressure Sodium									
Ballast Data				Standard Ignitor			Long Range Ignitor		
Philips Advance Ballast Family	Lamp Watts	ANSI Code	Ballast Circuit Type	Catalog Number	Max. Dist. (ft.) To Lamp	Case Type	Catalog Number	Max. Dist. (ft.) To Lamp	Case Type
71A7707	35	S76	R	LI551-H4-IC	2	Round	LI551-J4-IC	15	Round
71A7801	50	S68	HX	LI551-H4-IC	2	Round	LI551-J4-IC	35	Round
71A7807	50	S68	R	LI551-H4-IC	2	Round	LI551-J4-IC	15	Round
71A79_1	70	S62	HX	LI551-H4-IC	2	Round	LI551-J4-IC	35	Round
71A79_6	70	S62	CWI	LI551-J4-IC	2	Round	Not Available		
71A79_8	70	S62	CWA	LI551-J4-IC	5	Round	Not Available		
71A7907	70	S62	R	LI551-H4-IC	2	Round	LI551-J4-IC	15	Round
71A80_1	100	S54	HX	LI551-H4-IC	2	Round	LI551-J4-IC	35	Round
71A80_8	100	S54	CWA	LI551-J4-IC	5	Round	Not Available		
71A8007	100	S54	R	LI551-H4-IC	2	Round	LI551-J4-IC	15	Round
71A80_6	100	S54	CWI	LI551-J4-IC	2	Round	Not Available		
71A81_2	150	S55	HX	LI551-H4-IC	2	Round	LI551-J4-IC	35	Round
71A81_8	150	S55	CWA	LI551-J4-IC	10	Round	Not Available		
71A8107	150	S55	R	LI551-H4-IC	2	Round	LI551-J4-IC	15	Round
71A8156	150	S55	CWI	LI551-J4-IC	2	Round	Not Available		
71A85_5	150	S55	CWI	LI551-J4-IC	2	Round	Not Available		
71A81_6	150	S56	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A86_7	150	S56	R	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round



Round Case



Oval Case



CC125

Mounting Clip for Round Case  
(Furnished as standard with -001 suffix ballasts and  
all -IC suffix replacement ignitors.)

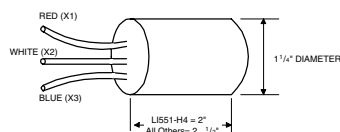
# Ignitor Specifications (Case Temperature Rating 105°C)

## High Pressure Sodium

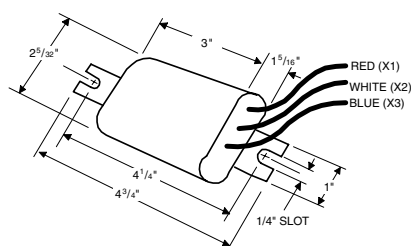


High Pressure Sodium									
Ballast Data				Standard Ignitor			Long Range Ignitor		
Philips Advance Ballast Family	Lamp Watts	ANSI Code	Ballast Circuit Type	Catalog Number	Max. Dist. (ft.) To Lamp	Case Type	Catalog Number	Max. Dist. (ft.) To Lamp	Case Type
71A89_0	200	S66	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A89_1	200	S66	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A89_7	200	S66	R	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A82_1	250	S50	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A82_6	250	S50	CWI	LI501-J4-IC	2	Round	Not Available		
71A82_7	250	S50	R	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A8392	250	S50	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A83_1	310	S67	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A83_7	310	S67	R	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A84_3	400	S51	CWA	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A84_6	400	S51	CWI	LI501-J4-IC	2	Round	Not Available		
71A84_7	400	S51	R	LI501-H4-IC	2	Round	LI501-J4-IC	50	Round
71A85_6	430	n/a	CWI	LI501-H4-IC	15	Round	LI501-J4-IC	35	Round
71A85_5	600	S106	CWA	LI561-H5-IC	5	Oval	Not Available		
71A85_8	600	S106	CWI	LI561-H5-IC	2	Oval	Not Available		
71A86_5	750	S111	CWA	LI561-H5-IC	5	Oval	Not Available		
71A87_3	1000	S52	CWA	LI571-H5-IC★	15	Oval	LI571-J5-IC★	75	Oval

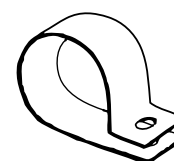
★ Equipped with an auto-rest thermal protector to help prevent ignitor from overheating in the event of lamp failure.



Round Case



Oval Case



CC125

Mounting Clip for Round Case  
(Furnished as standard with -001 suffix ballasts and all -IC suffix replacement ignitors.)