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# ATLAS Quick Guide 2006-2007





No. of Lamps	Lamp Description	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)	Other Lamps Operated									
									F17T8	F25T8	F32T8/ES			F40T8				
											25W	28W	30W					
1	F32T8 & F32T8/U	120	RS	Mark III	R-1P32-TP	35	0.95	0.32										
			IS	Standard	REL-1P32-LW-SC	29	0.75	0.24	✓	✓			✓					
					REL-1P32-SC	32	0.92	0.27	✓	✓			✓					
					REL-1P32-HL-SC	41	1.20	0.35	✓	✓			✓	✓				
			PS	Centium	RCN-1S32-SC	34	0.90	0.29	✓	✓			✓					
			RS	PowrKut	RK-132-TP	34	0.85	0.31										
		PS	Mark 10	REZ-132-SC	35 - 9	1.00 - 0.05	0.29	✓	✓									
		277	Mark III	IS	Standard	V-1P32-TP	41	0.98	0.32									
						VEL-1P32-LW-SC	29	0.75	0.11	✓	✓			✓				
						VEL-1P32-SC	32	0.92	0.12	✓	✓			✓				
				PS	Centium	VCN-1S32-SC	34	0.90	0.13	✓	✓			✓				
				RS	PowrKut	VK-132-TP	34	0.85	0.13									
				PS	Mark 10	VEZ-132-SC	35 - 9	1.00 - 0.05	0.13	✓	✓							
		120-277	IS	Centium	Optanium	ICN-132-MC	30	0.88	0.25 - 0.11	✓	✓			✓				
						ICN-1P32-LW-SC	27	0.77	0.22 - 0.10	✓	✓			✓				
						ICN-1P32-SC	31	0.90	0.26 - 0.12	✓	✓			✓				
						IOP-1P32-LW-SC★	25	0.77	0.22 - 0.10	✓	✓	✓	✓	✓				
						IOP-1P32-SC★	28	0.87	0.25 - 0.11	✓	✓	✓	✓	✓				
				PS	Mark 5	Mark 7	Optanium	IOP-1P32-HL-SC★	39 - 38	1.18	0.33 - 0.14	✓	✓	✓	✓	✓		
				IOP-1S32-LW-SC★				25	0.72	0.20 - 0.09	✓	✓	✓	✓	✓			
				IOP-1S32-SC★				28	0.88	0.24 - 0.10	✓	✓	✓	✓	✓			
				IIC-132-SC★				32	0.88	0.28 - 0.12	✓	✓			✓			
				IZT-132-SC				35-8	1.00 - 0.03	0.30 - 0.13	✓	✓						
		2	F32T8 & F32T8/U	120	RS	Mark III	R-2P32-TP	71	0.99	0.61								
							IS	AmbiStar	REB-2P32-SC (3)★	56	0.88	0.80	✓	✓				
									REL-2P32-LW-SC	51	0.75	0.44	✓	✓			✓	2
					IS	Standard	REL-2P32-SC	58	0.87	0.49	✓	✓			✓			
REL-2P32-HL-SC	77						1.20	0.65	✓	✓			✓	2				
PS	Centium						RCN-2S32-SC	63	0.88	0.53	✓	✓			✓			
RS	PowrKut				RK-2S32-TP	62	0.87	0.56										
IS	Optanium				ROP-2P32-LW-SC	48	0.78	0.41	✓	✓			✓	✓				
					ROP-2P32-SC	55	0.88	0.47	✓	✓			✓	✓				
					PS	Mark 10	REZ-2S32-SC	68 - 15	1.00 - 0.05	0.57	✓	✓						
277	Mark III				IS	Standard	V-2P32-TP	76	0.95	0.29								
							VEL-2P32-LW-SC	51	0.75	0.19	✓	✓			✓	2		
				VEL-2P32-SC			58	0.87	0.21	✓	✓			✓				
				PS	Centium	VCN-2S32-SC	63	0.88	0.23	✓	✓			✓				
				RS	PowrKut	VK-2S32-TP	62	0.87	0.24									
				IS	Optanium	VOP-2P32-LW-SC	48	0.78	0.17	✓	✓			✓	✓			
	120-277			Mark 10	IS	Centium	VOP-2P32-SC	55	0.88	0.20	✓	✓			✓	✓		
							PS	Mark 5	Mark 7	Optanium	VEZ-2S32-SC	68 - 15	1.00 - 0.05	0.25	✓	✓		
							ICN-2M32-MC				59	0.88	0.50 - 0.21	✓	✓			✓
					ICN-2P32-LW-SC	50 - 49	0.77				0.42 - 0.12	✓	✓			✓	2	
					PS	Mark 5	Mark 7	Optanium	ICN-2P32-SC	59	0.88	0.49 - 0.22	✓	✓			✓	2
									IOP-2P32-LW-SC★	48	0.77	0.41 - 0.17	✓	✓	✓	✓	✓	2
IOP-2P32-SC★	55 - 54			0.87					0.47 - 0.20	✓	✓	✓	✓	✓	2			
IS	Optanium			IOP-2P32-HL-SC★	74 - 72	1.18	0.62 - 0.26	✓	✓	✓	✓	✓	2					
				IOP-2S32-LW-SC	47 - 46	0.71	0.38 - 0.17	✓	✓	✓	✓	✓	2					
				IOP-2S32-SC	56 - 55	0.88	0.47 - 0.20	✓	✓	✓	✓	✓	2					
PS	Mark 5			Mark 7	Optanium	IOP-2S32-SC★	61	0.88	0.51 - 0.22	✓	✓			✓				
						IZT-2S32-SC	70 - 14	1.00 - 0.03	0.57 - 0.24	✓	✓							

★ New ballast  
 1 See Glossary for descriptions.  
 2 Refer to [www.advancetransformer.com](http://www.advancetransformer.com) for the correct number of F40T8 lamps that this ballast will operate.  
 3. Ballast is Normal Power Factor and labeled "For Residential Use Only".  
 For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).



# T8



No. of Lamps	Lamp Description	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)	Other Lamps Operated							
									F17T8	F25T8	F32T8/ES			F40T8		
											25W	28W	30W			
3	F32T8 & F32T8/U	120	IS	Standard	REL-3P32-LW-SC	76	0.75	0.64	✓	✓			✓	2		
					REL-3P32-SC	85	0.88	0.71	✓	✓			✓	2		
					REL-3P32-HL-SC	111	1.19	0.93	✓	✓			✓	2		
			PS	Centium	RCN-3S32-SC	91	0.88	0.78	✓	✓			✓			
					IS	Optanium	ROP-3P32-LW-SC	73	0.78	0.61	✓	✓			✓	✓
							ROP-3P32-SC	83	0.88	0.70	✓	✓			✓	✓
		PS	Mark 10	REZ-3S32-SC	102 - 20	1.00 - 0.05	0.86	✓	✓							
		277	IS	Standard	VEL-3P32-LW-SC	76	0.75	0.27	✓	✓			✓	2		
					VEL-3P32-SC	85	0.88	0.31	✓	✓			✓	2		
					VEL-3P32-HL-SC	111	1.19	0.40	✓	✓			✓	2		
			PS	Centium	VCN-3S32-SC	91	0.88	0.34	✓	✓			✓			
					IS	Optanium	VOP-3P32-LW-SC	73	0.78	0.27	✓	✓			✓	✓
							VOP-3P32-SC	82	0.88	0.30	✓	✓			✓	✓
		PS	Mark 10	VEZ-3S32-SC	102 - 20	1.00 - 0.05	0.37	✓	✓							
		120-277	IS	Centium	ICN-3P32-LW-SC	74 - 73	0.77	0.62 - 0.27	✓	✓				✓	2	
					ICN-3P32-SC	85	0.88	0.71 - 0.31	✓	✓				✓	2	
				Optanium	IOP-3P32-LW-SC★	73 - 71	0.77	0.62 - 0.27	✓	✓	✓	✓	✓	✓	2	
					IOP-3P32-SC★	82 - 80	0.87	0.70 - 0.30	✓	✓	✓	✓	✓	✓	2	
					IOP-3P32-HL-90C-SC★	110 - 107	1.18	0.91 - 0.39	✓	✓	✓	✓	✓	✓	2	
					IOP-3S32-LW-SC	71 - 70	0.71	0.59 - 0.21	✓	✓	✓	✓	✓	✓		
				PS	Mark 5	Optanium	IOP-3S32-SC	83 - 81	0.88	0.70 - 0.30	✓	✓	✓	✓	✓	
							IIC-3S32-SC★	91	0.88	0.76 - 0.32	✓	✓			✓	✓
					Mark 7	Optanium	IZT-3S32-SC	102 - 20	1.00 - 0.03	0.86 - 0.37	✓	✓				
4	F32T8 & F32T8/U	120	IS	AmbiStar	REB-4P32-SC (3)★	103	0.81	1.57	✓	✓						
					Standard	REL-4P32-LW-SC	98	0.75	0.82	✓	✓				✓	2
			PS	Centium		REL-4P32-SC	112	0.88	0.94	✓	✓				✓	2
					RCN-4S32-SC	121	0.88	1.03	✓	✓				✓		
			IS	Optanium	ROP-4P32-LW-SC	96	0.78	0.81	✓	✓				✓	✓	
					ROP-4P32-SC	108	0.88	0.91	✓	✓				✓	2	
				ROP-4P32-HL-90C	146	1.18	1.22	✓	✓				✓	2		
		277	IS	Standard	VEL-4P32-LW-SC	98	0.75	0.36	✓	✓				✓	2	
					VEL-4P32-SC	112	0.88	0.41	✓	✓				✓	2	
			PS	Centium	VCN-4S32-SC	121	0.88	0.45	✓	✓				✓		
					IS	Optanium	VOP-4P32-LW-SC	95	0.78	0.35	✓	✓				✓
			VOP-4P32-SC	107			0.88	0.39	✓	✓				✓	2	
					VOP-4P32-HL-90C	143	1.18	0.52	✓	✓				✓	2	
		120-277	IS	Centium	ICN-4P32-LW-SC	97- 95	0.77	0.81 - 0.34	✓	✓				✓	2	
					ICN-4P32-SC	112	0.88	0.94 - 0.41	✓	✓				✓	2	
				Optanium	IOP-4P32-LW-SC★	96 - 94	0.77	0.81 - 0.35	✓	✓	✓	✓	✓	✓	2	
					IOP-4P32-SC★	109 - 106	0.87	0.92 - 0.39	✓	✓	✓	✓	✓	✓	2	
			PS	Optanium	IOP-4P32-HL-90C-G★	146 - 143	1.18	1.24 - 0.52	✓	✓	✓	✓	✓	✓	2	
					IOP-4S32-LW-SC	93 - 91	0.71	0.77 - 0.33	✓	✓	✓	✓	✓	✓		
				Mark 7	Optanium	IOP-4S32-SC	110	0.88	0.92 - 0.40	✓	✓	✓	✓	✓	✓	
						IZT-4S32	116 - 25	0.88 - 0.03	0.98 - 0.42	✓	✓					

★ New ballast  
 1 See Glossary for descriptions.  
 2 Refer to [www.advancetransformer.com](http://www.advancetransformer.com) for the correct number of F40T8 lamps that this ballast will operate.  
 3. Ballast is Normal Power Factor and labeled "For Residential Use Only".  
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# T12



No. of Lamps	Lamp Description	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Standard Lamp			Energy-Saving Lamps		
						Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)
1	F30T12	120	RS	Magnetic	HM-1P30-TP	47	0.96	0.40	40	0.91	0.34
				Standard	REL-1S40-SC	30	0.98	0.27	28	1.07	0.24
		277		Magnetic	VM-1P30-TP	49	0.99	0.18	40	0.94	0.15
				Standard	VEL-1S40-SC	30	0.98	0.12	28	1.07	0.10
2	F30T12	120	RS	Magnetic	RM-2SP30-TP	79	0.97	0.66	70	0.90	0.58
				Mark III	R-2SP30-TP	75	0.96	0.63	65	0.91	0.55
				Standard	REL-2S40-SC	60	0.92	0.51	50	1.01	0.44
		277		Magnetic	VM-2SP30-TP	81	0.97	0.29	70	0.93	0.26
				Mark III	V-2SP30-TP	74	0.95	0.27	65	0.91	0.24
				Standard	VEL-2S40-SC	60	0.92	0.22	50	1.01	0.18
3	F30T12	120	RS	Standard	REL-3S40-RH-TP	90	0.95	0.78	80	0.95	0.69
		277		Standard	VEL-3S40-RH-TP	90	0.95	0.34	80	0.95	0.30
1	F40T12	120	RS	Mark III	R-140-TP (2)	50	0.95	0.43	43	0.88	0.38
				Standard	REL-1S40-SC	35	0.85	0.30	31	0.88	0.27
		277		Mark III	V-140-TP (2)	50	0.95	0.19	43	0.88	0.16
				Standard	VEL-1S40-SC	35	0.85	0.13	31	0.88	0.12
1	F40T12/U	120	RS	Mark III	R-1U40-TP (2)	52	0.98	0.44	44	0.93	0.39
				Standard	REL-1S40-SC	35	0.85	0.30	31	0.88	0.27
		277		Mark III	V-1U40-TP (2)	49	0.98	0.18	43	0.91	0.16
				Standard	VEL-1S40-SC	35	0.85	0.13	31	0.88	0.12
2	F40T12 & F40T12/U	120	RS	Mark III	R-2S40-TP (2)	86	0.95	0.73	72	0.88	0.63
				E-PAK	R-2S34-TP (2)	79	0.86	0.67	68	0.87	0.57
				PowrKut	RK-2S34-TP (2)	68	0.82	0.57	60	0.80	0.52
				Standard	REL-2S40-SC	71	0.85	0.62	60	0.85	0.52
		277		AmbiStar	RELB-2S40-SC★	73	0.85	0.62	62	0.85	0.53
				Mark III	V-2S40-TP (2)	86	0.95	0.32	72	0.88	0.27
				E-PAK	V-2S34-TP (2)	79	0.86	0.30	68	0.87	0.25
				PowrKut	VK-2S34-TP (2)	68	0.82	0.25	60	0.80	0.22
Standard	VEL-2S40-SC	71	0.85	0.25	60	0.85	0.22				
3	F40T12 & F40T12/U	120	RS	E-PAK	R-3S34-TP	NA	NA	NA	103	0.88	0.88
				Standard	REL-3S40-RH-TP	107	0.87	0.91	91	0.87	0.77
		277		E-PAK	V-3S34-TP	NA	NA	NA	103	0.88	0.37
				Standard	VEL-3S40-RH-TP	107	0.87	0.39	91	0.87	0.33
4	F40T12	120	RS	Mark III	R-4S40-A-TP-AC	172	0.95	1.46	144	0.88	1.26

★ New ballast

1 See Glossary for descriptions.

2 For Replacement Use Only

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).



# Slimline T8 & T12



No. of Lamps	Lamp Description	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Standard Lamp			Energy-Saving Lamps								
						Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)						
<b>T8 Slimline</b>																	
1	F96T8	120	IS	Standard	REL-2P59-S-RH-TP	70	1.10	0.62	68	1.10	0.60						
		277			REL-2P59-S-C							70	1.10	0.27	68	1.10	0.26
		120-277			VEL-2P59-S-RH-TP												
			Optanium	IOP-2P59-S-C★	67	1.05	0.56 - 0.25	64	1.05	0.56 - 0.25							
2	F96T8	120	IS	Standard	REL-2P59-S-RH-TP	110	0.85	0.94	106	0.85	0.90						
		277			REL-2P59-S-C							110	0.85	0.41	106	0.85	0.39
		120-277			VEL-2P59-S-RH-TP												
						Optanium	IOP-2P59-S-C★	107	0.87	0.97 - 0.39	103	0.87	0.86 - 0.37				
<b>T12 Slimline</b>																	
1	F48T12	120	IS	Magnetic	SM-140-S-TP	62	0.90	0.54	-	-	-						
2	F48T12	120	IS	Magnetic	SM-2E40-S-TP	96	0.90	0.82	80	0.90	0.72						
		277			VSM-2E40-S-TP	98	0.96	0.36	85	0.85	0.33						
1	F72T12	120	IS	Magnetic	RSM-175-S-TP	80	0.95	0.73	-	-	-						
				Standard	REL-2P60-S	70	1.10	0.62	-	-	-						
		277		Magnetic	VSM-175-S-TP	81	0.94	0.32	-	-	-						
				Standard	VEL-2P75-S	70	1.10	0.27	-	-	-						
2	F72T12	120	IS	Mark III	R-2E75-S-TP (2)	132	0.94	1.18	-	-	-						
				Standard	REL-2P60-S	110	0.92	0.93	-	-	-						
		277		Mark III	V-2E75-S-TP (2)	132	0.94	0.51	-	-	-						
				Standard	VEL-2P75-S	110	0.92	0.41	-	-	-						
1	F96T12	120	IS	Magnetic	RSM-175-S-TP	92	0.94	0.82	74	0.88	0.68						
				Standard	REL-2P60-S	85	1.05	0.75	70	1.05	0.62						
		277		Magnetic	VSM-175-S-TP	94	0.94	0.35	76	0.88	0.30						
				Standard	VEL-2P75-S	85	1.05	0.32	70	1.05	0.27						
2	F96T12	120	IS	Mark III	R-2E75-S-TP (2)	158	0.94	1.35	126	0.88	1.10						
				E-PAK	R-2E60-S-TP (2)	144	0.86	1.24	112	0.88	1.03						
				Magnetic	RC-2E75-S-TP (2)	158	0.94	1.35	-	-	-						
				Standard	REL-2P60-S	132	0.85	1.13	107	0.85	0.88						
				Mark III	V-2E75-S-TP (2)	158	0.94	0.60	126	0.88	0.47						
		277		E-PAK	V-2E60-S-TP (2)	144	0.86	0.54	112	0.88	0.44						
				Magnetic	VC-2E75-S-TP (2)	158	0.94	0.60	-	-	-						
				Standard	VEL-2P75-S	132	0.85	0.49	107	0.85	0.39						

★ New ballast

1 See Glossary for descriptions.

2 For Replacement Use Only

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).

# HO & VHO T5, T8 & T12

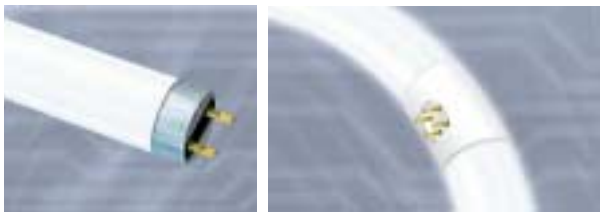


No. of Lamps	Lamp Description	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Standard Lamp			Energy-Saving Lamps		
						Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)
<b>T5/HO</b>											
1	F54T5/HO	120	PS	Mark 7	<b>RZT-154</b>	63 - 13	1.00 - 0.03	0.53	-	-	-
				Mark 10	<b>REZ-154</b>	63 - 13	1.00 - 0.03	0.53	-	-	-
		277		Mark 7	<b>VZT-154</b>	63 - 13	1.00 - 0.03	0.23	-	-	-
				Mark 10	<b>VEZ-154</b>	63 - 13	1.00 - 0.03	0.23	-	-	-
				Centium	<b>ICN-2S54</b>	62	1.02	0.52 - 0.23	-	-	-
<b>ICN-2S54-90C</b>	62	1.02	0.52 - 0.23		-	-	-				
		347-480		<b>HCN-2S54-90C</b>	62	1.02	0.18 - 0.13	-	-	-	
2	F54T5/HO	120	PS	Mark 7	<b>RZT-154</b>	125 - 24	1.00 - 0.03	1.05	-	-	-
				Mark 10	<b>REZ-154</b>	125 - 24	1.00 - 0.03	1.05	-	-	-
		277		Mark 7	<b>VZT-154</b>	125 - 24	1.00 - 0.03	0.45	-	-	-
				Mark 10	<b>VEZ-154</b>	125 - 24	1.00 - 0.03	0.45	-	-	-
		120-277		Centium	<b>ICN-2S54</b>	120	1.00	1.00 - 0.43	-	-	-
					<b>ICN-2S54-90C</b>	120	1.00	1.00 - 0.43	-	-	-
					<b>HCN-2S54-90C</b>	120	1.00	0.35 - 0.25	-	-	-
		347-480									
3	F54T5/HO	120-277	PS	Centium	<b>ICN-4S54-90C-2LS</b>	182	1.00	1.52 - 0.66	-	-	-
					<b>ICN-4S54-90C-2LS-G★</b>	182	1.00	1.52 - 0.66	-	-	-
		347-480			<b>HCN-4S54-90C-2LS-G★</b>	188	1.04	0.54 - 0.39	-	-	-
4	F54T5/HO	120-277	PS	Centium	<b>ICN-4S54-90C-2LS</b>	240	1.00	2.00 - 0.86	-	-	-
					<b>ICN-4S54-90C-2LS-G★</b>	240	1.00	2.00 - 0.86	-	-	-
		347-480			<b>HCN-4S54-90C-2LS-G★</b>	239	1.00	0.69 - 0.50	-	-	-
<b>T8/HO</b>											
1	F48T8/HO	120-277	PS	Centium	<b>ICN-2S86</b>	59	1.02	0.50 - 0.23	-	-	-
2	F48T8/HO	120-277	PS	Centium	<b>ICN-2S86</b>	98	0.95	0.84 - 0.36	-	-	-
1	F96T8/HO	120-277	PS	Centium	<b>ICN-2S86</b>	100	1.00	0.84 - 0.36	-	-	-
2	F96T8/HO	120	RS	Standard	<b>REL-2S86</b>	160	0.88	1.36	-	-	-
		277			<b>VEL-2S86</b>	160	0.88	0.60	-	-	-
		120-277	PS	Centium	<b>ICN-2S86</b>	185	0.95	1.57 - 0.68	-	-	-
<b>T12/HO</b>											
1	F48T12/HO	120	RS	Magnetic	<b>RS-110-TP</b>	84	0.94	0.72	-	-	-
		277			<b>VS-110-TP</b>	86	0.96	0.34	-	-	-
2	F48T12/HO	120	RS	Magnetic	<b>RC-2S85-TP</b>	133	0.85	1.16	-	-	-
				Standard	<b>REL-2S110</b>	125	1.15	1.09	-	-	-
		277		Magnetic	<b>VC-2S85-TP</b>	131	0.85	0.53	-	-	-
				Standard	<b>VEL-2S110</b>	125	1.15	0.48	-	-	-
1	F96T12/HO	120	RS	Magnetic	<b>RS-110-TP</b>	140	0.98	1.20	121	0.94	1.00
		277			<b>VS-110-TP</b>	145	1.00	0.54	125	0.95	0.47
2	F96T12/HO	120	RS	Mark III	<b>R-2S110-TP</b>	237	0.95	2.00	203	0.91	1.70
				Standard	<b>REL-2S110</b>	205	0.89	1.74	170	0.89	1.44
		277		Mark III	<b>V-2S110-TP</b>	245	0.98	0.90	210	0.93	0.79
				Standard	<b>VEL-2S110</b>	205	0.89	0.76	170	0.89	0.63
<b>T12/VHO</b>											
1	F96T12/VHO	120	RS	Magnetic	<b>RC-2S102-TP</b>	213	0.87	2.10	198	0.87	2.00
		277			<b>VC-2S102-TP</b>	216	0.88	0.89	190	0.83	0.73
2	F96T12/VHO	120	RS	Magnetic	<b>RS-2S200-TP</b>	467	1.01	3.89	412	0.93	3.49
		277			<b>VS-2S200-TP</b>	442	1.00	1.65	398	0.96	1.50

★ New ballast

1 See Glossary for descriptions.

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).



# Preheat & Circline



No. of Lamps	Lamp Description	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Input Power ANSI (Watts)	Ballast Factor	Line Current (Amps)	Other Lamps Operated				
									F15T8	F15T12	F15T8	F15T12	F40T8
1	F20T12	120	PH	Magnetic	LO-13-22	18	0.77	0.28	✓	✓	✓		
					LC-14-20-C	21	0.93	0.33	✓	✓	✓		
					L-120F	19	0.78	0.27	✓	✓			
					RLQ-120-TP	28	0.83	0.55	✓	✓	✓		
2	F20T12	120	PH	Magnetic	L-220F	35	0.75	0.55	✓	✓			
					RL-2SP20-TP	36	0.61	0.49	✓	✓	✓		
1	FC8T9	120	RS	Magnetic	RLQS-122-TP-W	25	0.75	0.53				✓	
1	FC16T9	120	RS	Magnetic	RLCS-140-TP-W	28	0.50	0.44					✓
1 Each	FC8T9 & FC12T9	120	RS	Magnetic	RS-22-32-TP-W	46	0.70	0.40					
					RMS-22-32-TP-W	40	0.61	0.36					
1 Each	FC12T9 & FC16T9	120	RS	Magnetic	RS-32-40-TP-W	56	0.60	0.76					
					RMS-32-40-TP-W	60	0.70	0.52					

1 See Glossary for descriptions.  
For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).



# Compact



No. of Lamps	Lamp Description <sup>2</sup>	Input Volts	Lamp Starting Method	Ballast Family (1)	Catalog Number	Quad Tube Lamps			Triple Tube Lamps		
						Input Power (Watts)	Ballast Factor	Line Current (Amps)	Input Power (Watts)	Ballast Factor	Line Current (Amps)
1 2	13W 4-Pin	120-277	PS	SmartMate Kit	ICF-2S13-H1-LD-K	16	1.00	0.13 - 0.06	16	1.00	0.13 - 0.06
						29	1.00	0.25 - 0.11	29	1.00	0.25 - 0.11
1 2	18W 4-Pin	120-277	PS	SmartMate Kit	ICF-2S18-H1-LD-K	19	1.00	0.16 - 0.07	20	1.05	0.17 - 0.08
						35	0.95	0.30 - 0.13	39	1.05	0.33 - 0.14
1	26W 4-Pin	120	PS	Mark 10 Kit	REZ-1T42-M2-LD-K	31 - 8	1.00 - 0.05	0.26	31 - 8	1.00 - 0.05	0.26
		277				31 - 8	1.00 - 0.05	0.11	31 - 8	1.00 - 0.05	0.11
		120-277				SmartMate Kit	ICF-2S26-H1-LD-K	27	1.00	0.23 - 0.10	29
2	26W 4-Pin	120	PS	Mark 10 Kit	REZ-2Q26-M2-LD-K	58 - 16	1.00 - 0.05	0.48	58 - 16	1.00 - 0.05	0.48
		277				58 - 16	1.00 - 0.05	0.21	58 - 16	1.00 - 0.05	0.21
		120-277				SmartMate Kit	ICF-2S26-H1-LD-K	51	1.00	0.43 - 0.19	54
1	32W 4-Pin	120	PS	Mark 10 Kit	REZ-1T42-M2-LD-K	NA	NA	NA	38 - 9	1.00 - 0.05	0.32
		277				NA	NA	NA	38 - 9	1.00 - 0.05	0.14
		120-277				SmartMate Kit	ICF-2S26-H1-LD-K	NA	NA	NA	36
2	32W 4-Pin	120-277	PS	SmartMate Kit	ICF-2S42-M2-LD-K	NA	NA	NA	68	0.98	0.57 - 0.25
1	42W 4-Pin	120	PS	Mark 10 Kit	REZ-1T42-M2-LD-K	NA	NA	NA	49 - 10	1.00 - 0.05	0.41
		277				NA	NA	NA	49 - 10	1.00 - 0.05	0.18
		120-277				SmartMate Kit	ICF-2S26-H1-LD-K	NA	NA	NA	46
2	42W 4-Pin	120-277	PS	SmartMate Kit	ICF-2S42-M2-LD-K	NA	NA	NA	93	0.97	0.78 - 0.33
1	57W 4-Pin	120-277	PS	SmartMate Kit	ICF-2S42-M2-LD-K	NA	NA	NA	59	0.94	0.50 - 0.21
1	70W 4-Pin	120-277	PS	SmartMate Kit	ICF-2S42-M2-LD-K	NA	NA	NA	75	0.96	0.63 - 0.27

1 See Glossary for descriptions.  
2 Consult [www.advancetransformer.com](http://www.advancetransformer.com) for other lamps (such as 2-D, T5 Circline, and TT5) approved for operation on SmartMate ballasts.  
For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).

**Kits include: Ballast, Mounting Adaptor Plate and Related Hardware**



# HID



Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Number	Circuit Type	Input Power (Watts)	Max. <sup>1</sup> Input Current
Mercury	50W	H46	120	71A1800-001	HX-NPF	74	2.1
	100W	H38 or H44	120/208/240/277	71A2571-001D	CWA	125	1.7/0.6/0.6/0.5
			120	71A2800-001	HX-NPF	125	3.6
	175W	H39	120/208/240/277	71A3072-001D	CWA	205	1.9/1.1/1.0/0.9
			480	71A3042-001D	CWA	200	0.5
			120	71A3301-001	HX-NPF	200	6.0
	250W	H37	120/208/240/277	71A3572-001D	CWA	285	2.5/1.4/1.3/1.1
			480	71A3542-001D	CWA	285	0.7
	400W	H33	120/208/240/277	71A4071-001D	CWA	454	3.9/2.2/2.0/1.7
			480	71A4041-001D	CWA	454	1.0
	(2) 400W	H33	120	71A4300-001	CWI (2 lamps in series)	880	7.5
			277	71A4330-001	CWI (2 lamps in series)	880	3.3
			480	71A4340-001	CWI (2 lamps in series)	880	1.9
	1000W	H36	120/208/240/277	71A5070-001	CWA	1075	9.8/5.6/4.9/4.3
480			71A5040-001	CWA	1080	2.3	
Metal Halide	50W	M110 or M148	120/277	71A5181-001D	HX-HPF	72	1.0/0.5
	70W	M98 or M143	120/208/240/277	71A5292-001D	HX-HPF	90	1.9/1.0/0.9/0.8
	100W	M90 or M140	120/208/240/277	71A5390-001D	HX-HPF	129	2.6/1.5/1.3/1.2
	150W	M102 or M142	120/208/240/277	71A5492-001D★	HX-HPF	185	3.7/2.1/1.8/1.6
	175/150W	M57/ M107 or H39	120/208/240/277	71A5570-001D	CWA	210	1.8/1.1/0.9/0.8
			480	71A5540-001D	CWA	210	0.5
	175W Pulse Start	M137 or M152	120/208/240/277	71A5593-001D	CWA	208	1.8/1.1/0.9/0.8
	200W Pulse-Start	M136	277	71A5637-001D	Linear Reactor HPF	218	1.3
			120/208/240/277	71A5692-001D	Super CWA	232	2.0/1.2/1.0/0.9
	250W	M58 or H37	120/208/240/277	71A5770-001D	CWA 4 1/2 x 4 3/4 Core	295	2.5/1.4/1.3/1.1
			120/208/240/277/480	71A5750-001D	CWA 4 1/2 x 4 3/4 Core	290	2.6/1.5/1.4/1.1/0.7
			480	71A5740-001D	CWA 4 1/2 x 4 3/4 Core	295	0.7
			120/208/240/277	71A5771-001D	CWA 3 x 4 Core	294	2.6/1.5/1.3/1.1
			480	71A5741-001D	CWA 3 x 4 Core	298	0.7
	250W Pulse-Start	M138 or M153	277	71A5737-001D	Linear Reactor HPF	272	1.5
	320W Pulse-Start	M132 or M154	120/208/240/277	71A5792-001D	Super CWA	292	2.5/1.4/1.3/1.1
			277	71A5837-001D	Linear Reactor HPF	342	1.9
	350W Pulse-Start	M131	120/208/240/277	71A5892-001D	Super CWA	368	3.3/1.9/1.7/1.4
			277	71A5937-001D	Linear Reactor HPF	375	2.1
	400W	M59 or H33	120/208/240/277	71A5993-001D	Super CWA	400	3.4/2.0/1.7/1.5
			277	71A6037-001D	Linear Reactor HPF	425	2.1
	400W	M59 or H33	120/208/240/277	71A6071-001D	CWA	458	4.0/2.3/2.0/1.7
			120/208/240/277/480	71A6051-001D	CWA	460	4.1/2.3/2.0/1.7/1.0
			480	71A6041-001D	CWA	462	1.0
	400W Pulse-Start	M135 or M155	277	71A6137-001D	Linear Reactor HPF	425	2.1
			120/208/240/277	71A6092-001D	Super CWA	452	3.8/2.2/1.9/1.7
	750W Pulse-Start	M149	277/347/480	71A64F2-001D★	Super CWA	818	3.0/2.5/1.7
			120/208/240/277/480	71A6452-001D★	Super CWA	818	7.4/3.5/3/1.8
	(2) 400W	M59 or H33	120/277	71A6382-001D	CWA (independent lamp operation)	890	8.2/3.6
			480	71A6342-001D	CWA (independent lamp operation)	890	2.05
	450W Pulse-Start	M144	277	71A6337-001D	Linear Reactor HPF	480	2.4
			120/208/240/277	71A6393-001D	Super CWA	508	4.3/2.5/2.2/1.9
	1000W	M47 or H36	120/208/240/277	71A6572-001	CWA	1080	9.0/5.2/4.5/3.9
			120/208/240/277/480	71A6552-001	CWA	1080	9.0/5.6/4.7/4.1/2.4
480			71A6542-001	CWA	1080	2.2	
1000W Pulse-Start	M141	120/208/240/277	71A6593-001	Super CWA	1080	9/5.2/4.5/3.9	
1500W	M48	120/208/240/277	71A6772-001	CWA	1605	13.5/7.8/6.8/5.9	
		480	71A6742-001	CWA	1625	3.4	

★ New ballast

<sup>1</sup> For CWA and CWI circuits, figure is operating current.

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).



Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Number	Circuit Type	Input Power (Watts)	Max. <sup>1</sup> Input Current
High Pressure Sodium	35W	S76	120	71A7707-001DB	Reactor-HPF	46	0.8
	50W	S68	120	71A7807-001DB	Reactor-HPF	62	1.0
			120/277	71A7801-001D	HX-HPF	66	1.0/0.5
	70W	S62	120	71A7907-001DB	Reactor-HPF	86	1.3
			120/208/240/277	71A7971-001D	HX-HPF	91	1.4/0.9/0.8/0.7
			120/208/240/277	71A7991-001DC*	HX-HPF	91	1.4/0.9/0.8/0.7
	100W	S54	120	71A8007-001DB	Reactor-HPF	115	1.8
			120/208/240/277	71A8071-001D	HX-HPF	130	2.2/1.3/1.1/0.9
			120/208/240/277	71A8091-001DC*	HX-HPF	130	2.2/1.3/1.1/0.9
			480	71A8041-001D	HX-HPF	130	0.6
	150W	S55	120	71A8107-001DB	Reactor-HPF	170	2.4
			120/208/240/277	71A8172-001D	HX-HPF	188	2.8/1.6/1.4/1.3
			120/208/240/277	71A8192-001DC*	HX-HPF	188	2.8/1.6/1.4/1.3
			480	71A8142-001D	HX-HPF	188	0.7
		S56	120/208/240/277	71A8176-001D	CWA	188	1.7/1.0/0.9/0.8
	480		71A8146-001D	CWA	188	0.5	
	200W	S66	120/208/240/277	71A8970-001D	CWA	240	2.2/1.3/1.1/1.0
			480	71A8940-001D	CWA	240	0.6
	250W	S50	120/208/240/277	71A8271-001D	CWA	295	2.5/1.5/1.3/1.1
			120/208/240/277	71A8291-001DC*	CWA	295	2.5/1.5/1.3/1.1
			120/208/240/277/480	71A8251-001D	CWA	300	2.6/1.5/1.3/1.2/0.7
			480	71A8241-001D	CWA	310	0.7
	310W	S67	120/208/240/277	71A8371-001D	CWA	365	3.4/1.9/1.7/1.4
	400W	S51	120/208/240/277	71A8473-001D	CWA	464	3.8/2.2/1.9/1.7
			120/208/240/277	71A8493-001DC*	CWA	464	3.8/2.2/1.9/1.7
			120/208/240/277/480	71A8453-001D	CWA	465	3.9/2.2/1.9/1.7/1.0
			480	71A8443-001D	CWA	464	1.0
			480	71A8443-001DC*	CWA	464	1.0
1000W	S52	120/208/240/277	71A8773-001	CWA	1100	9.5/5.5/4.8/4.2	
		120/208/240/277	71A8793-001C*	CWA	1100	9.5/5.5/4.8/4.2	
		120/208/240/277/480	71A8753-001	CWA	1100	9.3/5.3/4.7/4.1/2.3	
		480	71A8743-001	CWA	1100	2.3	
		480	71A8743-001C*	CWA	1100	2.3	

<sup>1</sup> For CWA and CWI circuits, figure is operating current.

\* C denotes connectorized ignitor.



**Advance HID Kits provide customers with maximum flexibility**

Core and Coil Kits (71A\_\_\_\_) are typically furnished with a QuadriVolt™ ballast (120/208/240/277V input leads) or with a 5-TAP™ ballast (which adds a 480V input lead to the QuadriVolt™ voltages). These kits include all components needed to service an HID fixture, including dry-film capacitor\*, ignitor, mounting clips, brackets, and mounting hardware. All input voltage leads are pre-insulated, so there is no need to cap-off the unused leads. Ignitors (where required) are pre-wired to the ballast — yet another labor-saving feature!

\* included on kits with a "D" suffix

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com).



# HID



## VAL-U-PAK KITS

VAL-U-PAK Kits (77K\_) offer the same features and benefits as our QuadriVolt® kits, with the added value of a distributor-supplied lamp in the carton.

Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Number	Circuit Type	Input Power (Watts)	Max. <sup>1</sup> Input Current
Metal Halide	175/150W	M57/M107 or H39	120/208/240/277	77K5570-001D	CWA	210	1.8/1.1/1.9/1.8
	250W	M58 or H37	120/208/240/277	77K5770-001D	CWA	295	2.5/1.4/1.3/1.1
	250W	M58 or H37	120/208/240/277/480	77K5750-001D	CWA	290	2.6/1.5/1.4/1.1/1.7
	400W	M59 or H33	120/208/240/277	77K6071-001D	CWA	458	4.0/2.3/2.0/1.7
	400W	M59 or H33	120/208/240/277/480	77K6051-001D	CWA	460	4.1/2.3/2.0/1.7/1.0
	1000W	M47 or H36	120/208/240/277/480	77K6552-001	CWA	1080	9.0/5.6/4.7/4.1/2.4
Pulse-Start Metal Halide	320W	M132/M154	277	77K5837-001D	Linear Reactor-HPF	342	1.9
	320W	M132/M154	120/208/240/277	77K5892-001D	Super CWA	368	3.3/1.9/1.7/1.4
	350W	M131	277	77K5937-001D	Linear Reactor-HPF	375	2.1
	350W	M131	120/208/240/277	77K5993-001D	Super CWA	400	3.4/2.0/1.7/1.5
High Pressure Sodium	100W	S54	120/208/240/277	77K8071-001D	HX-HPF	130	2.2/1.3/1.1/1.9
	150W	S55	120/208/240/277	77K8172-001D	HX-HPF	188	2.8/1.6/1.4/1.3
	250W	S50	120/208/240/277	77K8271-001D	CWA	295	2.5/1.5/1.3/1.1
	250W	S50	120/208/240/277/480	77K8251-001D	CWA	300	2.6/1.5/1.3/1.2/1.7
	400W	S51	120/208/240/277	77K8473-001D	CWA	464	3.8/2.2/1.9/1.7
	400W	S51	120/208/240/277/480	77K8453-001D	CWA	465	3.9/2.2/1.9/1.7/1.0
	1000W	S52	120/208/240/277/480	77K8753-001	CWA	1100	9.3/5.3/4.7/4.1/2.3

## VAL-U-PAK PLUS KITS

VAL-U-PAK PLUS Kits (77L\_) offer the same features and benefits as our QuadriVolt® and 5-Tap™ kits, and include a lamp supplied by Advance.

Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Number	Circuit Type	Input Power (Watts)	Max. <sup>1</sup> Input Current
Metal Halide	175/150W	M57/M107 or H39	120/208/240/277	77L5570-001D	CWA	210	1.8/1.1/1.9/1.8
	250W	M58 or H37	120/208/240/277/480	77L5750-001D	CWA	290	2.6/1.5/1.4/1.1/1.7
	400W	M59 or H33	120/208/240/277/480	77L6051-001D	CWA	460	4.1/2.3/2.0/1.7/1.0
	1000W	M47 or H36	120/208/240/277/480	77L6552-001	CWA	1080	9.0/5.6/4.7/4.1/2.4/
High Pressure Sodium	100W	S54	120/208/240/277	77L8071-001D-MED	HX-HPF	130	2.2/1.3/1.1/1.9
	150W	S55	120/208/240/277	77L8172-001D-MOG	HX-HPF	188	2.8/1.6/1.4/1.3
	250W	S50	120/208/240/277/480	77L8251-001D	CWA	300	2.6/1.5/1.3/1.2/1.7
	400W	S51	120/208/240/277/480	77L8453-001D	CWA	465	3.9/2.2/1.9/1.7/1.0
	1000W	S52	120/208/240/277/480	77L8753-001	CWA	1100	9.3/5.3/4.7/4.1/2.3

<sup>1</sup> For CWA and CWI circuits, figure is operating current.

## DynaVision® Electronic HID



Lamp Type	Lamp Watts	ANSI Codes	Input Volts	Catalog Number	Input Power (Watts)	Line Current (Amps)
Pulse start Metal Halide	320W	M132/M154	200 - 277	IZTEMH4003PS	345	1.8 - 1.3
	350W	M131	200 - 277	IZTEMH4003PSXJ	375	1.9 - 1.4
	400W	M135/M155	200 - 277	IZTEMH4003PS-F★ IZTEMH4003PSXJ-F★	430	2.2 - 1.6

★ New ballast

<sup>1</sup> Suffix "F" indicates model for low temperature operation (-40 C to +55 C). Standard models are suitable for operation from 0° C to +55°C. Suffix "XJ" indicates model without junction box.

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com)



# e-Vision® Electronic HID



Lamp Type	Lamp Data		ANSI Codes	Input Volts <sup>1</sup>	Catalog Number <sup>2</sup>	Input Power (Watts)	Line Current
	Number	Lamp Watts					
Metal Halide	1	22W	M175	120	RMH-20-E-LF★ RMH-20-E-BLS★	26	0.23
	1	39W	M130	120	RMH-39-K-LF★ RMH-39-K-LFS★	45	0.50
	1	39W	M130	120-277	IMH-39-G-LF★ IMH-39-G-BLS★ IMH-39-J-LF★	46-45	0.39-0.18
	1	39W	M130	120-277	IMH-50-A-LF (3) IMH-50-A-BLS(3)	45-44	0.38-0.16
	2	39W	M130	120-277	IMH-239-A-LF★ IMH-239-A-BLS★	89	0.74-0.31
	1	50W	M110/M148	120-277	IMH-50-A-LF (3) IMH-50-A-BLS (3)	56-55	0.47-0.20
	1	70W	M98/M139/M143	120-277	IMH-70-G-LF★ IMH-70-G-BLS★ IMH-70-J-LF★	80-79	0.67-0.30
	1	70W	M98/M139/M143	120-277	IMH-70-D-LF★ IMH-70-D-BLS★	80-79	0.67-0.29
	1	70W	M98/M139/M143	120-277	IMH-100-A-LF (3) IMH-100-A-BLS (3)	82-81	0.68-0.30
	1	100W	M90/M140	120-277	IMH-100-A-LF (3) IMH-100-A-BLS (3)	112-110	0.93-0.40
	1	100W	M90/M140	120-277	IMH-100-D-LF★ IMH-100-D-BLS★	110-109	0.92-0.40
	1	150W	M102/M142	120-277	IMH-150-H-LF★ IMH-150-H-BLS★	165-161	1.40-0.60
	1	150W	M102/M142	120-277	IMH-175-C-LF IMH-175-C-BLS	169-166	1.40-0.60
	1	175W	M137/M152	120-277	IMH-175-C-LF IMH-175-C-BLS	194-191	1.70-0.70
	1	200W	M136	120-277	IMH-200-C-LF★	229-219	2.0-1.0

★ New ballast

1 Units designated as 120-277 are IntelliVolt: 120-277V ± 10%

2 Suffix Information: - LF includes ballast with side exit leads (input and output on opposite ends), -LFS includes ballast with side exit leads (all on the same end),  
- BLS includes ballast with bottom exit leads and mounting studs

3 Units IMH100A & IMH50A are dual wattage models; wiring determines lamp wattage setting

For additional lamp applications and a complete ballast listing, visit [www.advancetransformer.com](http://www.advancetransformer.com)

## GLOSSARY:

- Magnetic** Standard electromagnetic ballast.
- MARK III™** Energy-saving electromagnetic ballast.
- E-PAK™** Energy-saving electromagnetic ballast optimized for energy-saving lamps.
- PowrKut®** Low frequency electronic ballast. Will not interfere with EMI/RFI.
- AmbiStar™** High frequency electronic ballast ideal for residential applications.
- Standard** High frequency electronic ballast with less than 20% THD.
- Centium®** High frequency electronic ballast with less than 10% THD.
- Optanium™** Hi-efficiency high frequency electronic ballast with less than 10% THD.
- Mark 5™** Programmed start electronic ballast with less than 10% THD.
- Mark 7™** Low voltage control (0-10V) dimming ballast.
- Mark 10™** Line voltage control (2-wire) dimming ballast.
- SmartMate®** Programmed start electronic ballast for 4-Pin CFL lamps.
- PH** Preheat Start
- IS** Instant Start
- RS** Rapid Start
- PS** Programmed Start



# ADVANCE Lamp Ballast Limited Warranty

## ADVANCE® Lamp Ballast Limited Warranty

Advance, 10275 W. Higgins Road, Rosemont, IL 60018 warrants that its lamp ballasts will be free from defects in material and workmanship from the date of manufacture by Advance for the following periods.

### (2) Years

Standard Magnetic Fluorescent  
High Intensity Discharge (HID)  
Magnetic Fluorescent & HID Sign  
Matchbox® (case temperature 60°C or less)  
AmbiStar™ (case temperature 65°C or less)

### (3) Years

Mark III™ Magnetic Fluorescent  
E-PAK™ Magnetic Fluorescent  
Centium® Electronic 90°C T5/HO (case temperature 71°C through 90°C)  
SmartMate® Compact Fluorescent (case temperature 76°C through 85°C)  
Electronic Sign (case temperature 90°C or less)  
E-Vision® Electronic HID  
DynaVision® Electronic HID (ambient temperature 55°C or less)

### (5) Years

Standard Electronic (case temperature 70°C or less)  
Centium® Electronic (case temperature 70° or less)  
Centium® Electronic 90°C T5/HO (case temperature 70° or less)  
Optanium® Electronic (case temperature 70° or less)  
Mark 5™ Electronic (case temperature 70° or less)  
SmartMate® Compact Fluorescent (case temperature 75° or less)  
PowrKut® Low Frequency Electronic (case temperature 90° or less)  
Mark 7™ 0-10V Electronic Dimming (case temperature 70° or less)  
Mark 10™ *Powerline* Electronic Dimming (case temperature 70° or less)  
ROVR™ Electronic Dimming (case temperature 70° or less)  
Xitanium® LED Drivers

This warranty is conditioned upon proper storage, installation, use and maintenance. This warranty is not applicable to any ballast which is not installed and operated in accordance with the current edition of The National Electric Code (NEC), the Standards for Safety or Underwriters' Laboratory, Inc. (UL), the Standards for the American National Standards Institute (ANSI), and with Advance's instruction and guidelines for the ballast. This warranty is not applicable to any ballast subjected to abnormal stresses and operating conditions.

Advance shall correct any defects, at Advance's option, by either repairing any defective part or parts or by replacing any and defective part or parts or by making available a new replacement ballast.

The conditions of any tests concerning any ballast which is claimed to have not performed to this warranty shall be mutually agreed upon in writing and Advance shall be notified or, and may be represented at any such tests. This express limited warranty is extended by Advance only to the original or first end-user purchase.

Warranty claims are to be made in accordance with Advance's published Warranty Service program.

**NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY BEYOND THE AFOREMENTIONED WARRANTY PERIOD.** The foregoing warranty is exclusive of all other statutory, written or oral warranties, and no other warranties of any kind, statutory or otherwise are, give or herein expressed. This warranty sets forth Advance's responsibilities regarding the ballast and claimant's exclusive remedy.

**LIMITATION OF LIABILITY.** Advance will not under any circumstances whether as a result of breach of contract, breach of warranty, tort, strict liability or otherwise be liable for consequential, incidental, special or exemplary damages including but not limited to, loss of profits or revenues, loss of use of ballast or any other goods or associated equipment or damage to any associated equipment, cost of capital, cost of substitute products, facilities or services, down time cost, or claims of claimant's customers.

Advance's liability of any claim of any kind for any loss or damages arising out of, resulting from or concerning any aspect of this agreement of from the product or services furnished hereunder shall not exceed the price of the specific ballast or ballasts which gives rise to the claim.

This warranty gives the claimant specific legal rights. The claimant may also have other rights which vary from state to state.

