

# LAMP CHART 4 PIN LAMPS ONLY

## LAMPS

### WORKHORSE

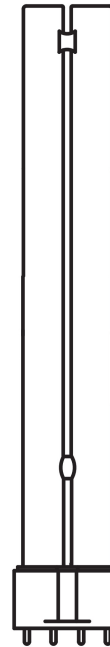
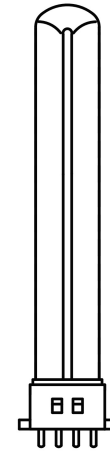
WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8
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### WHAM | LONGHORSE

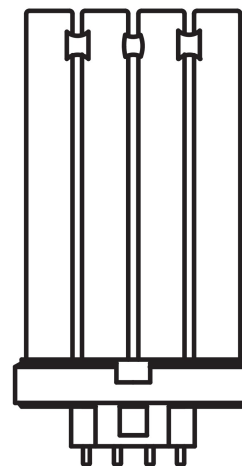
WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
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TWIN	WORKHORSE									WHAM   LONGHORSE								
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
1 X 5W	3	2				2					15	2	3	2		2		
2 X 5W		1	1			1			9					1		1		9
3 X 5W									8									8
4 X 5W					7		7	7									7	7
1 X 7W	3	2									15	2	3	2				
2 X 7W		1				1			9			1	1		1		9	
3 X 7W									8									8
4 X 7W									7									7
1 X 9W	3	2									15	2	3	2				
2 X 9W		1				1						1	1		1			
3 X 9W									8									8
4 X 9W									7									7
1 X 11W	3										15	2	3					
2 X 11W		1				1						1	1		1			
3 X 11W									8									8
4 X 11W									7									7
1 X 13W		3	2	2		2			14		3		3	2	2			14
2 X 13W			1	1	9		9	11						1		9		11
3 X 13W					8		8											8
4 X 13W					7		7											7
1 X 18W		3	2	2	14	2		14			3		3	2	2			14
2 X 18W			1	1	9		9	9						1		9		9
3 X 18W					8		8											8
4 X 18W							7											7
1 X 24W		3	2	2	14	3	14	14			3		3	2	3	14		14
2 X 24W				1	9		9	11						1		9		11
3 X 24W							8											8
1 X 27W		3	2	2	14	3	14	14			3		3	2	3	14		14
2 X 27W					9		9	11								9		11
4 X 27W									7									
1 X 28W PA			3	3	14		14	10							3		14	10
2 X 28W PA					11		11											11
3 X 28W PA									8									
4 X 28W PA									7									
1 X 36/39W			2	2	14	3	14	10							2	3	14	10
2 X 36/39W							9	11		22						9		11
3 X 36/39W									8	25								
4 X 36/39W									7	27								
5 X 36/39W										28								
6 X 36/39W										29								
1 X 40W				2	14	2		14							2	2		14
2 X 40W							9	11									9	11
3 X 40W							8			25								8
4 X 40W									7	27								
5 X 40W										28								
1 X 50W				3	14	3	14	10							3	3	14	10
2 X 50W							11	11		22							11	11
3 X 50W									8	25								
4 X 50W									7	27								
1 X 55W				3	10		10	12		16					3		10	12
2 X 55W							11		9									11
3 X 55W									8	26								
1 X 55WPA					10		12	13	14								12	13
2 X 55WPA									11	23								
3 X 55WPA										26								
1 X 96W							12	14	17						3		10	13
2 X 96W								11	24									
<b>FLAT QUAD</b>																		
1 X 18W		3	2	2	14	3	14	14			3		3	2	3	14		14
2 X 18W					9		9	11								9		11
3 X 18W							8											8
3 X 18W PA																		
4 X 18W PA									7									
1 X 24W		3	2	2	14	3		14			3		3	2	3			14
2 X 24W				1	9		9	11						1		9		11
3 X 24W							8											8
1 X 28W PA				3	10		10	13							3		10	13
2 X 28W PA									9									

## TWIN



## FLAT QUAD

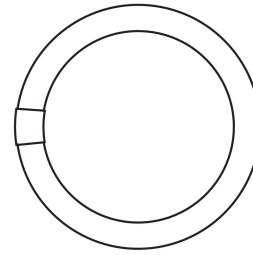




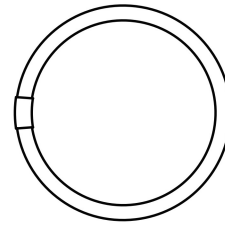
# LAMP CHART

LAMPS	WORKHORSE								WHAM		LONGHORSE							
	WH	WH	WH	WH	WH	WH	WH	WH	WM	WM	LH	LH	LH	LH	LH	LH		
	1	2	22	3	33	4	5	6	7	8	1	2	1	2	3	4	5	6
<b>CIRCLINE</b>																		
1 X 20W	3	2	2	14	3	14	14				3	3	2	3	14	14		
2 X 20W				9		9	11								9	11		
4 X 20W								7										
1 X 22W	3	2	2	14	3	14	14				3	3	2	3	14	14		
2 X 22W				9		9	11								9	11		
4 X 22W								7										
1 X 32W		3	3	14		14	10						3		14	10		
2 X 32W				11		11									11			
3 X 32W								8										
4 X 32W								7										
1 X 40W		2	14	3	14	10							2	3	14	10		
2 X 40W						9	11								9	11		
4 X 40W								7										
1 X 22+32			1			9	11						1		9	11		
1 X 32+40							11									11		
<b>T5 CIRCLINE</b>																		
1 X 22W	3	2	2	14	3		14				3	3	2	3		14		
2 X 22W				9		9	11								9	11		
3 X 22W				8		8									8			
1 X 40W		2	14	3	14	14							2	3	14	14		
2 X 40W						9	11								9	11		
1 X 55W OS		3	10				12						3			12		
2 X 55W OS							11	9								11		
1 X 22+40			1			9	11						1		9	11		
<b>T2 LINEAR</b>																		
1 X F6	2										2							
2 X F6	1										1							
1 X F8	2										2							
2 X F8	1										1							
1 X F11	2										2							
2 X F11	1										1							
1 X F13	2										2							
2 X F13	1										1							
<b>T5 LINEAR</b>																		
1 X F4	3	2								15	2	3	2					
2 X F4		1		1							1	1		1				
3 X F4								8									8	
4 X F4								7										7
1 X F6	3	2								15	2	3	2					
2 X F6		1		1							1	1		1				
3 X F6								8									8	
4 X F6								7										7
1 X F8	2	2								15	2	2	2					
2 X F8		1		1							1	1		1				
4 X F8								7										7
1 X F13	3	2								15	2	3	2					
2 X F13		1		1							1	1		1				
3 X F13								8									8	
4 X F13								7										7
1 X F14	3	2								15	2	3	2					
2 X F14		1		1							1	1		1				
3 X F14								8									8	
4 X F14								7										7
1 X F21	3	2								15	2	3	2					
2 X F21		1		1								1		1				
3 X F21								8									8	
4 X F21								7										7
1 X F28	3	2								15	2	3	2					
2 X F28				1											1			
3 X F28								8									8	
4 X F28								7										7
1 X F35		2								15		2						
2 X F35				1												1		
3 X F35								8									8	
4 X F35								7										7
<b>T5 HO</b>																		
1 X F24 HO	3	2	2	14	3		14					3	2	3		14		
2 X F24 HO			1	9			9	11					1		9	11		
3 X F24 HO							8									8		

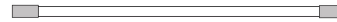
## CIRCLINE



## T5 CIRCLINE

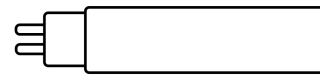


## T2 LINEAR



1/4" DIA

## T5 LINEAR



5/8" DIA

## T5 HO



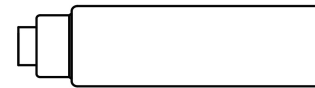
5/8" DIA



# LAMP CHART

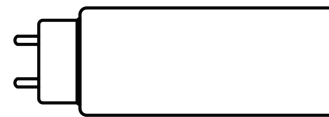
LAMPS	WORKHORSE								WHAM		LONGHORSE							
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
3 X F40							8										8	
1 X F58								10										10
2 X F58							11			22							11	
3 X F58									8									
1 X F70								10										10
2 X F70							11			22							11	
1 X F72					2											2		
2 X F72					1			9							1		9	
3 X F72								8									8	
4 X F72								7									7	
<b>T8 HO</b>																		
1 X F48 HO				3	14		14	10							3	14	10	
2 X F48 HO							11			22						11		
3 X F48 HO									8	25								
4 X F48 HO									7	27								
1 X F60 HO				3	14		14	10							3	14	10	
2 X F60 HO							11			22						11		
3 X F60 HO									8	25								
4 X F60 HO									7	27								
1 X F72 HO				3	14		14	10							3	14	10	
2 X F72 HO										22								
3 X F72 HO							11		8	25							11	
<b>T10 LINEAR</b>																		
1 X F40				3	14	3	14	10							3	3	14	10
2 X F40							11	11		22							11	11
3 X F40									8	25								
4 X F40									7	27								
5 X F40										28								
<b>T10 VHO</b>																		
1 X F48 VHO									12	19								
1 X F60 VHO									12	19								
1 X F72 VHO									12	19								
1 X F96 VHO									12	19								
<b>T12 LINEAR</b>																		
1 X F14	3	2	2	14	3	14	10				3		3	2	3	14	10	
2 X F14				9		9	11									9	11	
3 X F14										25								
4 X F14									7	27								
5 X F14										28								
6 X F14										29								
1 X F15	3	2	2		3		14				3		3	2	3		14	
2 X F15			1	9		9	11							1		9	11	
3 X F15				8		8										8		
4 X F15						7				27						7		
5 X F15										28								
6 X F15										29								
1 X F20	3	2	2	14	3	14	14				3		3	2	3	14	14	
2 X F20				9		9	11									9	11	
3 X F20										25								
4 X F20									7	27								
5 X F20										28								
6 X F20										29								
1 X F24		3		14	3	14	10				3				3	14	10	
2 X F24				11		11	11									11	11	
3 X F24									8	25								
4 X F24									7	27								
5 X F24										28								
1 X F25		3	3	14		14	10							3		14	10	
2 X F25				11		11										11		
3 X F25									8	25								
4 X F25									7	27								
1 X F30		3	3	14	3	14	10							3	3	14	10	
2 X F30				11		11	11									11	11	
3 X F30									8	25								
4 X F30									7	27								
5 X F30										28								
1 X F36			3	14	3	14	10							3	3	14	10	
2 X F36				11		11	11									11	11	
3 X F36									8	25								
4 X F36									7	27								

## T8 HO



1" DIA

## T10 LINEAR



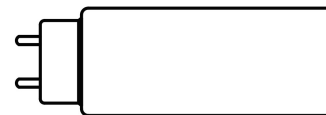
1 1/4" DIA

## T10 VHO



1 1/4" DIA

## T12 LINEAR



1 1/2" DIA

# LAMP CHART

## LAMPS

## WORKHORSE

## WHAM

## LONGHORSE

WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
------	------	-------	------	-------	------	------	------	------	------	------	------	------	------	------	------	------	------

5 X F36																		28
1 X F40			3	14	3	14	10							3	3	14	10	
2 X F40							11	11									11	11
3 X F40									8									25
4 X F40									7									27
5 X F40																		28
1 X F42			3	14	3	14	10							3	3	14	10	
2 X F42							11	11									11	11
3 X F42									8									25
4 X F42									7									27
5 X F42																		28
1 X F48			3	1	3	14	10							3	3	14	10	
2 X F48							11	11									11	11
3 X F48									8									25
4 X F48									7									27
5 X F48																		28
1 X F60			2	14	3	14	10							2	3	14	10	
2 X F60							11	11									11	11
3 X F60									8									25
4 X F60									7									27
1 X F64			2	14	3	14	10							2	3	14	10	
2 X F64							11	11									11	11
3 X F64									8									25
4 X F64																		27
1 X F72			2	14	3	14	10							2	3	14	10	
2 X F72							11	11									11	11
3 X F72									8									25
4 X F72																		27
1 X F84			2		3	14	10							2	3	14	10	
2 X F84							11	11									11	11
3 X F84									8									25
1 X F96							14	10									14	10
2 X F96							9	11									9	11
3 X F96									8									

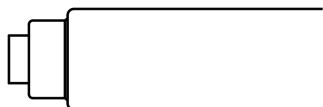
## T12 HO

1 X F18 HO				12			12	13	14								12	13
2 X F18 HO									11									23
3 X F18 HO																		26
1 X F24 HO				12			12	13	14								12	13
2 X F24 HO									11									23
3 X F24 HO																		26
1 X F30 HO				12			12	13	14								12	13
2 X F30 HO									11									23
3 X F30 HO																		26
1 X F36 HO				12			12	13	14								12	13
2 X F36 HO									11									23
3 X F36 HO																		26
1 X F42 HO				12			12	13	14								12	13
2 X F42 HO									11									23
3 X F42 HO																		26
1 X F48 HO				12			12	13	14								12	13
2 X F48 HO									11									23
3 X F48 HO																		26
1 X F60 HO							12	13	14								12	13
2 X F60 HO									11									23
3 X F60 HO																		26
1 X F64 HO							12	13	14								12	13
2 X F64 HO									11									23
1 X F72 HO							12	13	14								12	13
2 X F72 HO									11									23
1 X F84 HO							12	13	14								12	13
2 X F84 HO									11									23
1 X F96 HO							12	13	14								12	13
2 X F96 HO									11									23

## T12 VHO

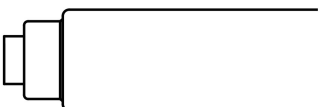
1 X F48 VHO																		12	19
1 X F60 VHO																		12	19
1 X F72 VHO																		12	19
1 X F96 VHO																		12	19

## T12 HO



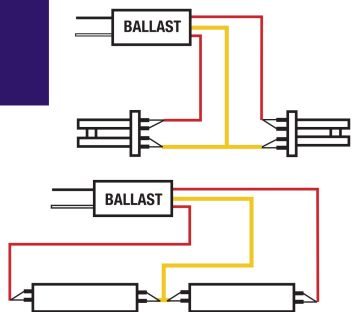
1 1/2" DIA

## T12 VHO

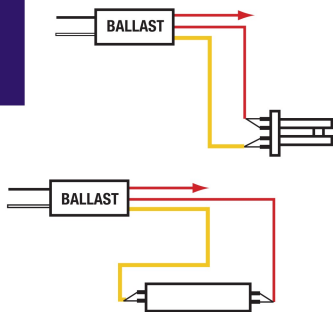


# WIRING DIAGRAMS for WORKHORSE, WHAM and LONGHORSE

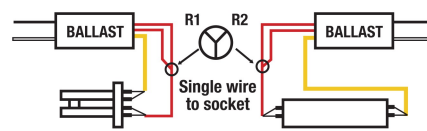
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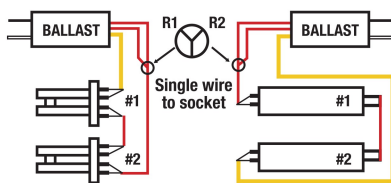
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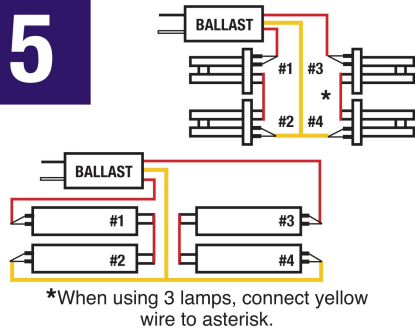
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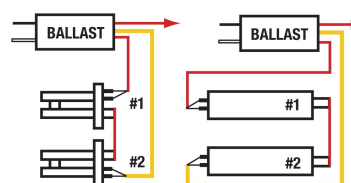
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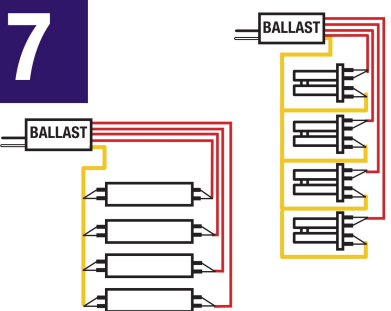
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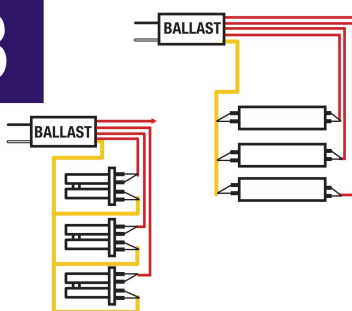
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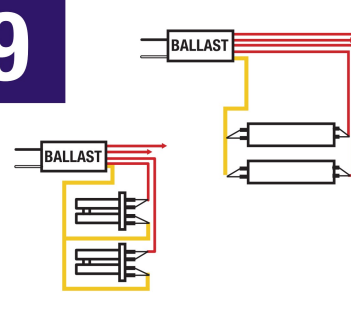
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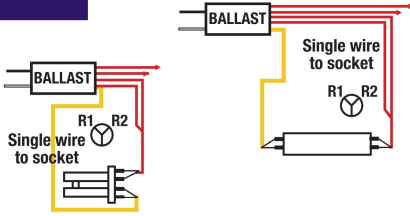
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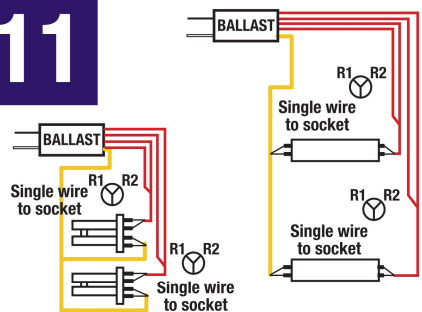
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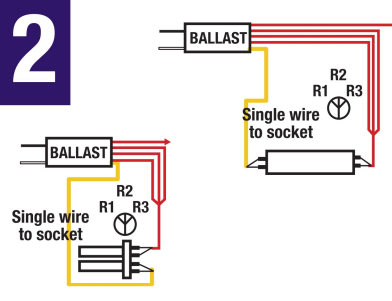
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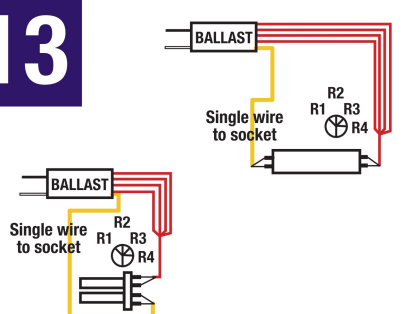
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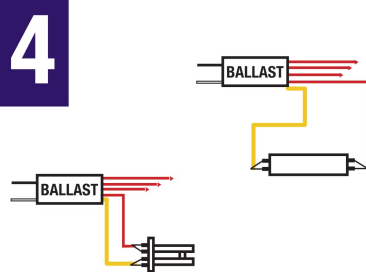
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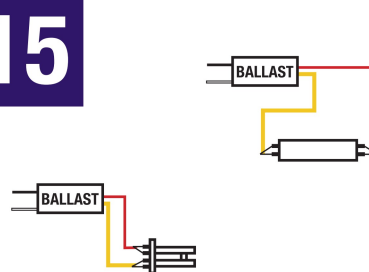
13



14



15



## OPERATION & INSTALLATION TIPS

1. Connect both pin sets of the socket before connecting "RED" & "YELLOW" wires.
2. Ground case in accordance with the "National Electric Code."
3. With Linear lamps, use a starting aid.
4. Ballast case temperature can not exceed 70°C.
5. Remote mounting distance varies with lamp type. Contact customer service.
6. Ballast can not be used with dimmer switch but can be used with Occupancy Sensor.  
(Note: Sensor will shorten lamp life.)
7. Cap and insulate any unused red power wire.
8. When connecting two red power wires, they must be joined to make one wire before attaching to the socket.
9. BLS (Back Leads with Studs) Dimensions:  
Stud Length: 5/8", Stud Size: 8/32, Center to Center: 2"
10. Running lamps in series will reduce the turn-on cycles of both lamps.  
(Configuration diagrams 4, 5, 6)

