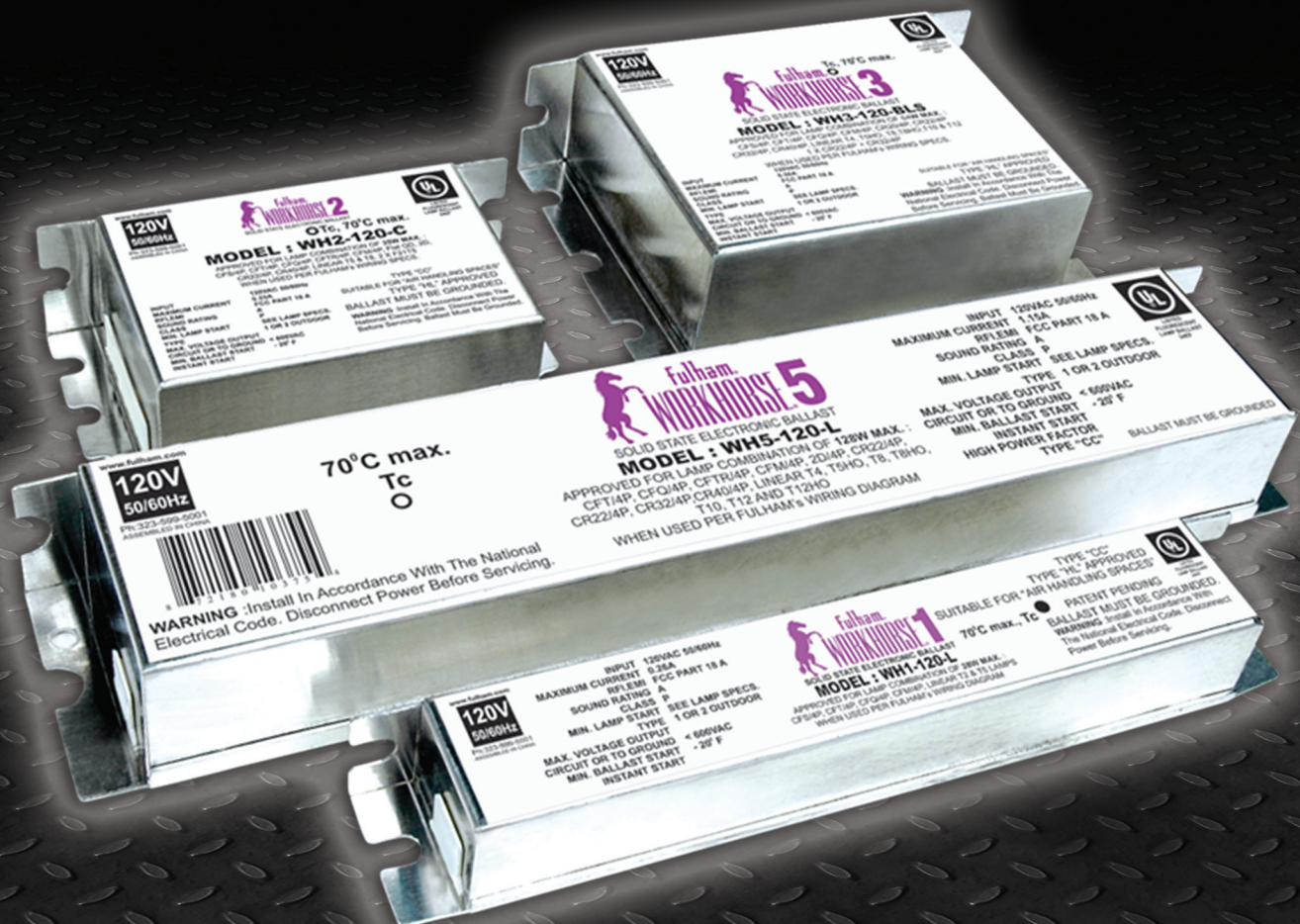


HARNESS THE POWER OF THE WORKHORSE®

LAMP CAPATIBILITY & WIRING DIAGRAMS

10 BALLASTS OPERATE 132 LAMPS IN 860 COMBINATIONS



LAMPS

WORKHORSE

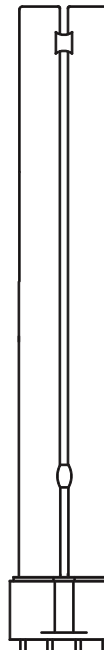
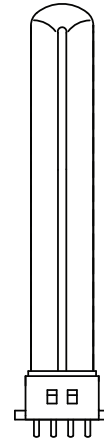
WHAM

LONGHORSE

1. Find your lamp type.
2. Find the quantity and wattage of lamps.
3. Look across and find the ballast you need.
4. The colored number represents wiring diagram.

4 PIN ONLY

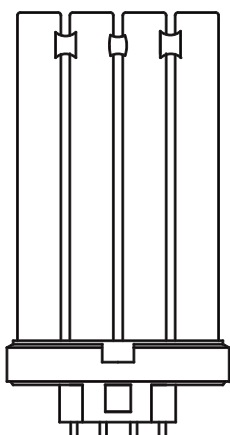
TWIN



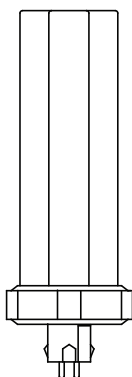
	WORKHORSE								WHAM				LONGHORSE					
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
TWIN																		
1 X 5W	3	2				2					15	2	3	2		2		
2 X 5W		1	1			1		9						1		1		9
3 X 5W								8										8
4 X 5W					7		7	7									7	7
1 X 7W	3	2									15	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	

4 PIN ONLY

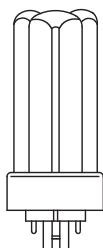
FLAT QUAD



QUAD



TRIPLE



LAMPS

WORKHORSE

WHAM

LONGHORSE

	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WH 1	WH 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
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							12	
2 X 96W									11	24								
FLAT QUAD																		
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									
1 X 36W				2	14	3	14	10							2	3	14	10
2 X 36W					9		9	11									9	11
3 X 36W										25								
4 X 36W									7									
1 X 55W PA					10		12	13	14								12	13
2 X 55W PA									11									
1 X 96W PA							12		14								12	
2 X 96W PA									11									
QUAD																		
1 X 10W	3	2				2					15	2	3	2		2		
2 X 10W		1	1			1		9						1		1		9
3 X 10W								8										8
4 X 10W					7			7										7
1 X 13W	3	2									15	2	3	2				
2 X 13W		1				1						1		1		1		
3 X 13W								8										8
4 X 13W								7										7
1 X 18W	3	2				2					15	2	3	2		2		
2 X 18W				1		1		9							1	1		9
3 X 18W					8		8	8									8	8
4 X 18W							7										7	
1 X 26W		3	2	2	14	3		14				3		3	2	3		14
2 X 26W				1	9		9	11							1		9	11
3 X 26W							8										8	
4 X 26W							7										7	
1 X 27W PA					10		10	13	14								10	13
2 X 27W PA									9									
TRIPLE																		
1 X 13W	3	2									15	2	3	2				
2 X 13W		1				1						1		1		1		
3 X 13W								8										8
4 X 13W								7										7
1 X 18W	3	2				2					15	2	3	2		2		
2 X 18W				1				9							1			9

LAMPS

WORKHORSE

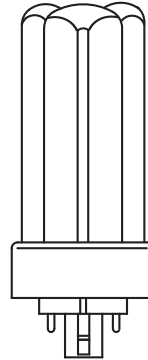
WHAM

LONGHORSE

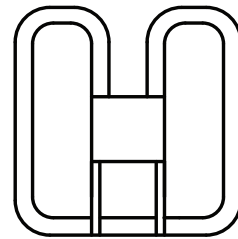
1. Find your lamp type.
2. Find the quantity and wattage of lamps.
3. Look across and find the ballast you need.
4. The colored number represents wiring diagram.

	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WH 1	WH 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
3 X 18W					8			8										8
4 X 18W							7										7	
1 X 26W		3	2	2	14	3		14				3		3	2	3		14
2 X 26W				1	9		9	11									9	11
3 X 26W							8										8	
4 X 26W							7										7	
1 X 32W		3	2	2	14	3	14	14						3	2	3	14	14
2 X 32W				1	9		9	11									9	11
3 X 32W							8										8	
1 X 42W				2	14	3	14	14							2	3	14	14
2 X 42W							9	11									9	11
3 X 42W							8										8	
2-D																		
1 X 10W	3	2										15	2	3	2			
2 X 10W		1				1		9				1		1		1		9
3 X 10W								8										8
4 X 10W								7										7
1 X 16W	3	2				2						15	2	3	2		2	
2 X 16W			1					9										9
3 X 16W								8										8
4 X 16W					7		7	7									7	7
1 X 21W		2				2								2		2		
2 X 21W				1				9							1			9
3 X 21W					8		8	8									8	8
4 X 21W							7										7	
1 X 28W		3	2	2		2		14				3		3	2	2		14
2 X 28W				1	9		9	11							1		9	11
3 X 28W							8										8	
4 X 28W							7										7	
1 X 38W				2	14	3	14	14							2	3	14	14
2 X 38W							9	11									9	11
4 X 38W									7									
1 X 55W					12		12		14								12	
2 X 55W									11									
CIRCLINE																		
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	
T5 CIRCLINE																		
1 X 22W		3	2	2	14	3		14				3		3	2	3		14
2 X 22W					9		9	11									9	11

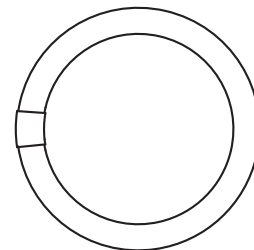
4 PIN ONLY TRIPLE



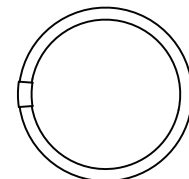
2-D



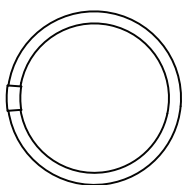
CIRCLINE



T5 CIRCLINE



T5 CIRCLINE



T2 LINEAR



1/4" DIAMETER

T5 LINEAR



5/8" DIAMETER

LAMPS	WORKHORSE								WHAM				LONGHORSE					
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WH 1	WH 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
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
T2 LINEAR																		
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					
T5 LINEAR																		
1 X F4	3	2										15	2	3	2			
2 X F4		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			
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			
4 X F8								7										7
1 X F13	3	2										15	2	3	2			
2 X F13		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			
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
T5 HO																		
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	
4 X F24 HO							7			27							7	

LAMPS

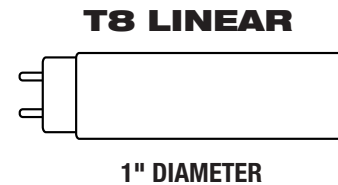
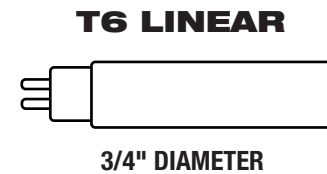
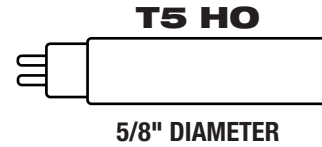
WORKHORSE

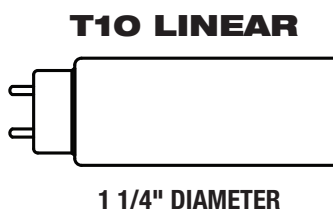
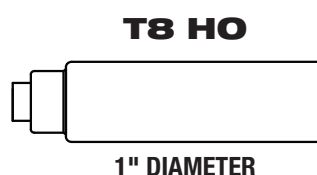
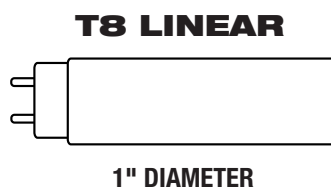
WHAM

LONGHORSE

1. Find your lamp type.
2. Find the quantity and wattage of lamps.
3. Look across and find the ballast you need.
4. The colored number represents wiring diagram.

	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WH 1	WH 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
5 X F24 HO										28								
6 X F24 HO										29								
1 X F39 HO				2	14	3	14	14							2	3	14	14
2 X F39 HO							9	11									9	11
3 X F39 HO							8			25							8	
4 X F39 HO								7		27								
5 X F39 HO										28								
1 X F54 HO				3	14		14	12		16					3		14	12
2 X F54 HO							11			22							11	
3 X F54 HO								8										
4 X F54 HO								7										
1 X F80 HO							10	12		16							10	12
2 X F80 HO								9										
T6 LINEAR																		
1 X F42	3	2				2							3	2		2		
2 X F42				1		1		9							1	1		9
3 X F42								8										8
4 X F42								7										7
1 X F64						2										2		
2 X F64						1		9								1		9
3 X F64								8										8
T8 LINEAR																		
1 X F13		3	2	2	14	3		14				3		3	2	3		14
2 X F13				1	9		9	11							1		9	11
3 X F13					8		8										8	
4 X F13								7		27								
5 X F13										28								
6 X F13										29								
1 X F14		3	2	2	14	3	14	14				3		3	2	3	14	14
2 X F14					9		9	11									9	11
3 X F14							8			25							8	
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	1	9		9	11							1		9	11
3 X F15					8		8										8	
4 X F15					7		7										7	
5 X F15										28								
6 X F15										29								
1 X F17		3		2		2						3		3	2	2		
2 X F17			1	1				9							1			9
3 X F17					8		8										8	
4 X F17					7		7										7	
6 X F17										29								
1 X F18		3	2	2	14	3		14				3		3	2	3		14
2 X F18					9		9	11									9	11
3 X F18							8			25							8	
4 X F18										27								
5 X F18										28								
6 X F18										29								
1 X F25		3		2		2						3		3	2	2		
2 X F25				1				9							1			9





LAMPS	WORKHORSE								WHAM				LONGHORSE					
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WH 1	WH 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
3 X F25							8										8	
4 X F25							7										7	
6 X F25										29								
1 X F30		3	2	2	14	3		14					3	2	3			14
2 X F30					9		9	11									9	11
3 X F30							8			25							8	
4 X F30								7		27								
5 X F30										28								
6 X F30										29								
1 X F32		2		2		2							3	2	2			
2 X F32				1				9						1				9
3 X F32							8										8	
4 X F32							7										7	
6 X F32										29								
1 X F40				2		2									2	2		
2 X F40								9										9
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
T8 HO																		
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								8		25								
T10 LINEAR																		
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								
T10 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 LINEAR																		
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								

LAMPS

WORKHORSE

WHAM

LONGHORSE

1. Find your lamp type.
2. Find the quantity and wattage of lamps.
3. Look across and find the ballast you need.
4. The colored number represents wiring diagram.

	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
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		22							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			22							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		22							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		22							11	11
3 X F36									8	25								
4 X F36									7	27								
5 X F36										28								
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								
1 X F42				3	14	3	14	10							3	3	14	10
2 X F42							11	11		22							11	11
3 X F42									8	25								
4 X F42									7	27								
5 X F42										28								
1 X F48				3	14	3	14	10							3	3	14	10
2 X F48							11	11		22							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

T12 LINEAR



1 1/2" DIAMETER

LAMPS

WORKHORSE

WHAM

LONGHORSE

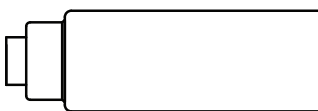
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
2 X F60							11	11		22							11	11
3 X F60									8	25								
4 X F60									7	27								
1 X F64				2	14	3	14	10							2	3	14	10
2 X F64							11	11		22							11	11
3 X F64									8	25								
4 X F64										27								
1 X F72				2	14	3	14	10							2	3	14	10
2 X F72							11	11		22							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		22							11	11
3 X F84									8	25								
1 X F96 (60W & 75W)							14	10									14	10
2 X F96 (60W Only)							9	11		22							9	11
3 X F96 (60W Only)									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" DIAMETER

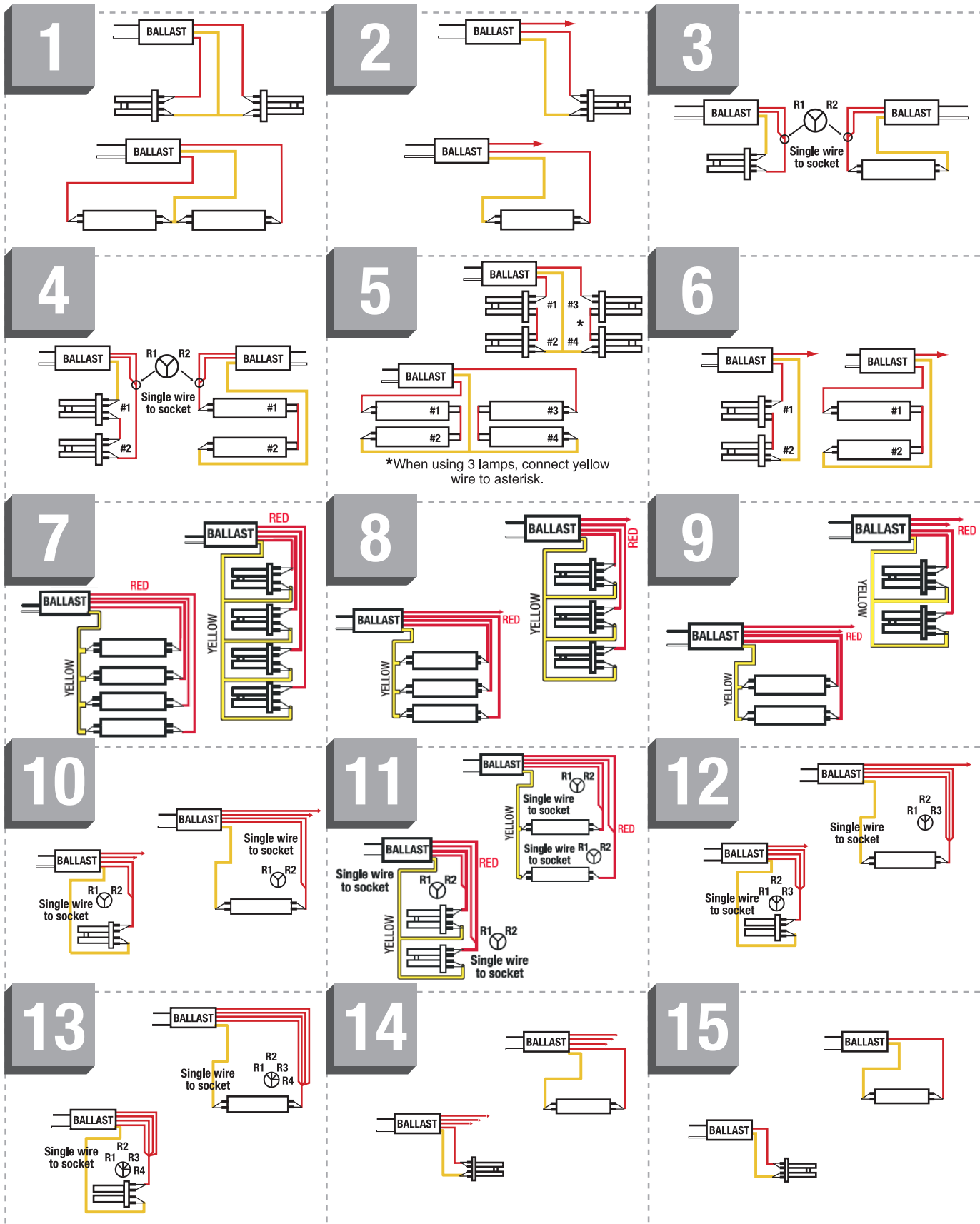
T12 VHO



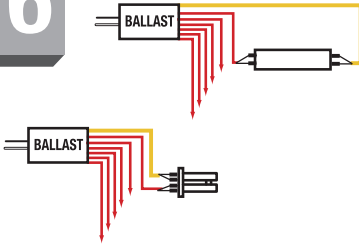
OPERATION & INSTALLATION TIPS

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 lamp 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.)

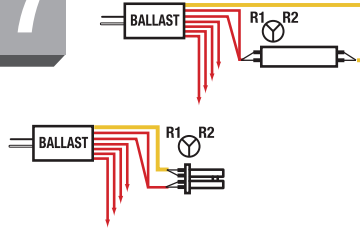
7. Cap and insulate any unused red power wire. → = Cap
8. When connecting two red power wires, they must be joined to make one wire before attaching to the socket.
9. BLS (Back Leads with Studs) Dimensions:
Stud Length: 5/8", Stud Size: 8/32, Center to Center: 2"
10. Running lamps in series will reduce the turn-on cycles of both lamps.
(Configuration diagrams 4, 5, 6)



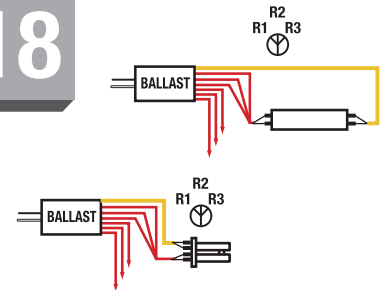
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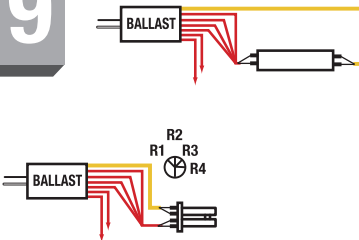
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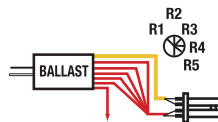
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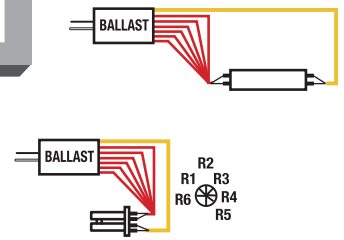
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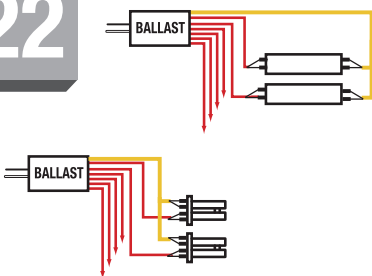
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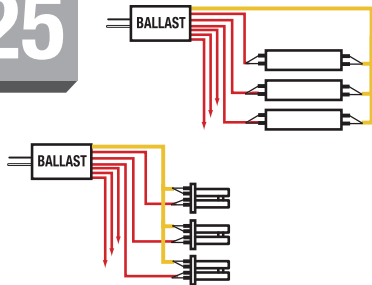
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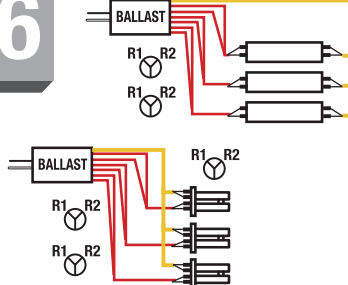
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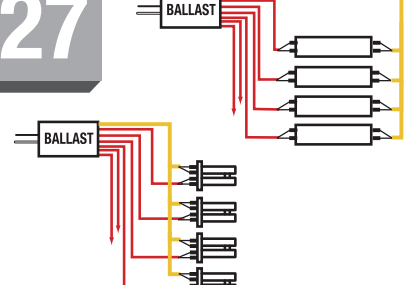
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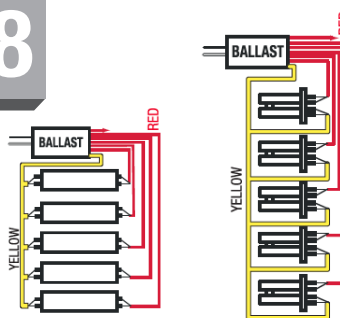
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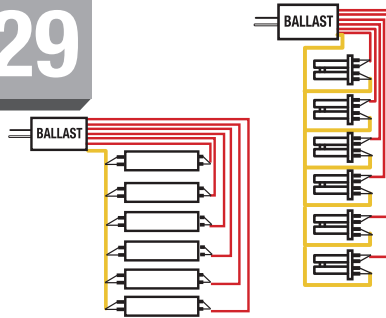
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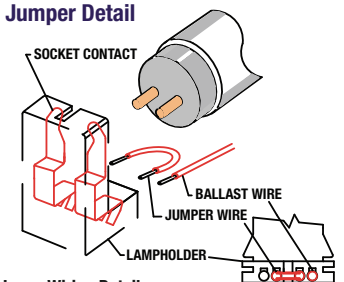
28



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Wiring Jumper Detail



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