

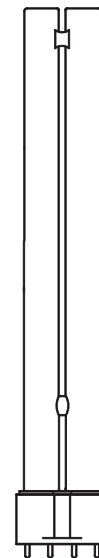
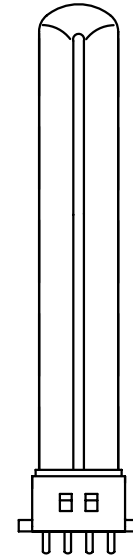
LAMP CAPATIBILITY & WIRING DIAGRAMS

The image displays four boxes of Fulham Workhorse electronic ballasts, arranged on a perforated metal surface. The boxes are for models WH2-120-C, WH3-120-BLS, WH5-120-L, and WH1-120-L. Each box features the Fulham Workhorse logo, a '120V 50/60Hz' label, and detailed technical specifications. The boxes are white with purple and black text. The WH5-120-L box is the largest and is positioned in the foreground, while the others are behind it. The WH2-120-C box is on the left, the WH3-120-BLS box is on the right, and the WH1-120-L box is at the bottom. Each box also includes a barcode and a warning label about proper installation and grounding.

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

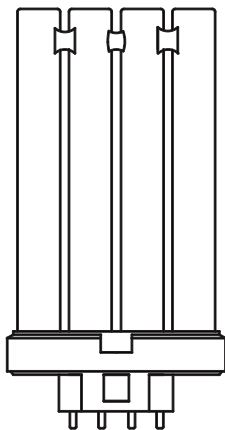
TWIN



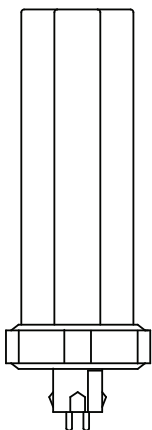
LAMPS	WORKHORSE								WHAM				LONGHORSE					
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
TWIN																		
1 X 5W	3	2				2					15	2	3	2		2		
2 X 5W			1			1		9						1		1		9
3 X 5W								8										8
4 X 5W					7			7									7	7
1 X 7W	3	2									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			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							1		9	9
3 X 18W					8		8										8	
4 X 18W							7										7	
1 X 24W		3	2	2	14	3		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				3		3	2	3	14	14
2 X 27W					9		9	11									9	11
1 X 28W PA				3	14			10							3		14	10
2 X 28W PA					11												11	
1 X 36/39W			2	2	14	3		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		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			13									12	13
2 X 55WPA									23									
3 X 55WPA									26									

4 PIN ONLY

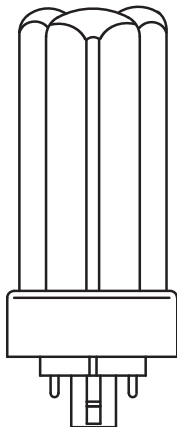
FLAT QUAD



QUAD



TRIPLE

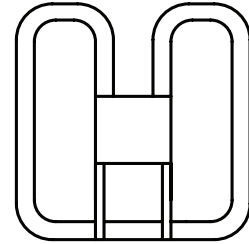


LAMPS	WORKHORSE								WHAM LONGHORSE									
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
1 X 96W										17							12	
2 X 96W										24								
FLAT QUAD																		
1 X 18W		3	2	2	14	3		14				3		3	2	3	14	14
2 X 18W					9		9	11									9	11
3 X 18W							8										8	
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										3		10	13
1 X 36W				2	14	3	14	10							2	3	14	10
2 X 36W					9		9	11									9	11
3 X 36W										25								
1 X 55W PA					10			13									12	13
1 X 96W PA																	12	
QUAD																		
1 X 10W	3					2					15	2	3	2		2		
2 X 10W						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					9		9	11							1		9	11
3 X 26W							8										8	
4 X 26W							7										7	
1 X 27W PA					10			13									10	13
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
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					9		9	11									9	11
3 X 26W							8										8	
4 X 26W							7										7	
1 X 32W		3	2	2	14	3		14						3	2	3	14	14
2 X 32W				1	9		9	11									9	11
3 X 32W							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

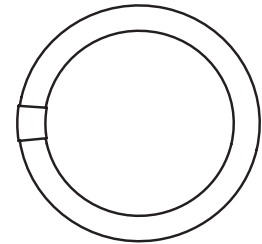
1. Find your lamp type.
2. Find the quantity and wattage of lamps.
3. Look across and find the ballast you need.
4. The colored number represents wiring diagram.

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
4 X 10W								7										7
1 X 16W	3	2				2					15	2	3	2		2		
2 X 16W		1	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	
T9 CIRCLINE																		
1 X 20W		3	2	2	14	3		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				3		3	2	3	14	14
2 X 22W					9		9	11									9	11
4 X 22W									7									
1 X 32W			3	3	14			10							3		14	10
2 X 32W					11		9										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
3 X 40W									8									
4 X 40W									7									
1 X 22+32W				1			9	11							1		9	11
1 X 32+40W							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
3 X 22W					8		8										8	
1 X 40W				2	14	3		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+40W				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				

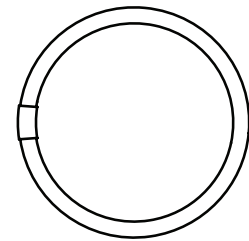
2-D



T9 CIRCLINE



T5 CIRCLINE



T2 LINEAR



1/4" Diameter

T5 LINEAR



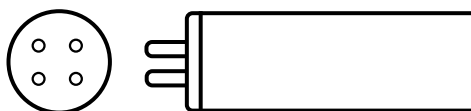
5/8" Diameter

T5 HO



5/8" Diameter

T5 UV LINEAR



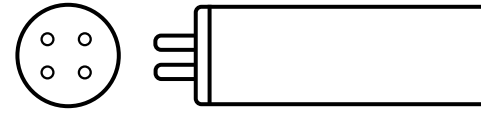
5/8" Diameter

LAMPS	WORKHORSE								WHAM		LONGHORSE							
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
T5 LINEAR																		
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											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	
5 X F24 HO										28								
6 X F24 HO										29								
1 X F39 HO				2	14	3		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								12		16							10	12
2 X F80 HO									9									
T5 UV (LINEAR)																		
1 X 90W							12											
1 X 110W							12											

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.

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
T6 UV (LINEAR)																		
1 X 38W							12											
1 X 50W							12											
1 X 55W							12											
1 X 90W									10									
1 X 120W									10									
1 X 150W									10									
T6 SLIMLINE																		
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			11							1		9	11
3 X F13					8		8										8	
4 X F13							7		7	27								
5 X F13										28								
6 X F13										29								
1 X F14		3	2	2	14	3		14				3		3	2	3	14	14
2 X F14					9			11									9	11
3 X F14							8			25							8	
4 X F14							7		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			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							7			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
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	

T6 UV LINEAR



3/4" Diameter

T6 SLIMLINE



3/4" Diameter

T8 LINEAR



1" Diameter

1 1/2" Diameter

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.

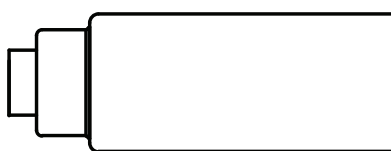
LAMPS	WORKHORSE								WHAM		LONGHORSE							
	WH 1	WH 2	WH 22	WH 3	WH 33	WH 4	WH 5	WH 6	WH 7	WH 8	WM 1	WM 2	LH 1	LH 2	LH 3	LH 4	LH 5	LH 6
3 X F15					8		8										8	
4 X F15							7			27							7	
5 X F15										28								
6 X F15										29								
1 X F20		3	2	2	14	3		14				3		3	2	3	14	14
2 X F20					9		9	11									9	11
3 X F20							8			25								
4 X F20							7		7	27								
5 X F20										28								
6 X F20										29								
1 X F25			3	3	14		14	10							3		14	10
2 X F25					11		9			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		9	11		22							11	11
3 X F30									8	25								
4 X F30									7	27								
5 X F30										28								
1 X F40				3	14	3	14	10							3	3	14	10
2 X F40							9	11		22							11	11
3 X F40									8	25								
4 X F40									7	27								
5 X F40										28								
T12 SLIMLINE																		
1 X F24			3		14	3	14	10				3				3	14	10
2 X F24					11		9	11		22							11	11
3 X F24									8	25								
4 X F24									7	27								
5 X F24										28								
1 X F36				3	14	3	14	10							3	3	14	10
2 X F36					11		9	11		22							11	11
3 X F36									8	25								
4 X F36									7	27								
5 X F36										28								
1 X F42				3	14	3		10							3	3	14	10
2 X F42								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							9	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
2 X F60							9	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							9	11		22							11	11
3 X F64									8	25								
4 X F64									7	27								

T12 SLIMLINE



1 1/2" Diameter

T12 HO



1 1/2" Diameter

T12 VHO



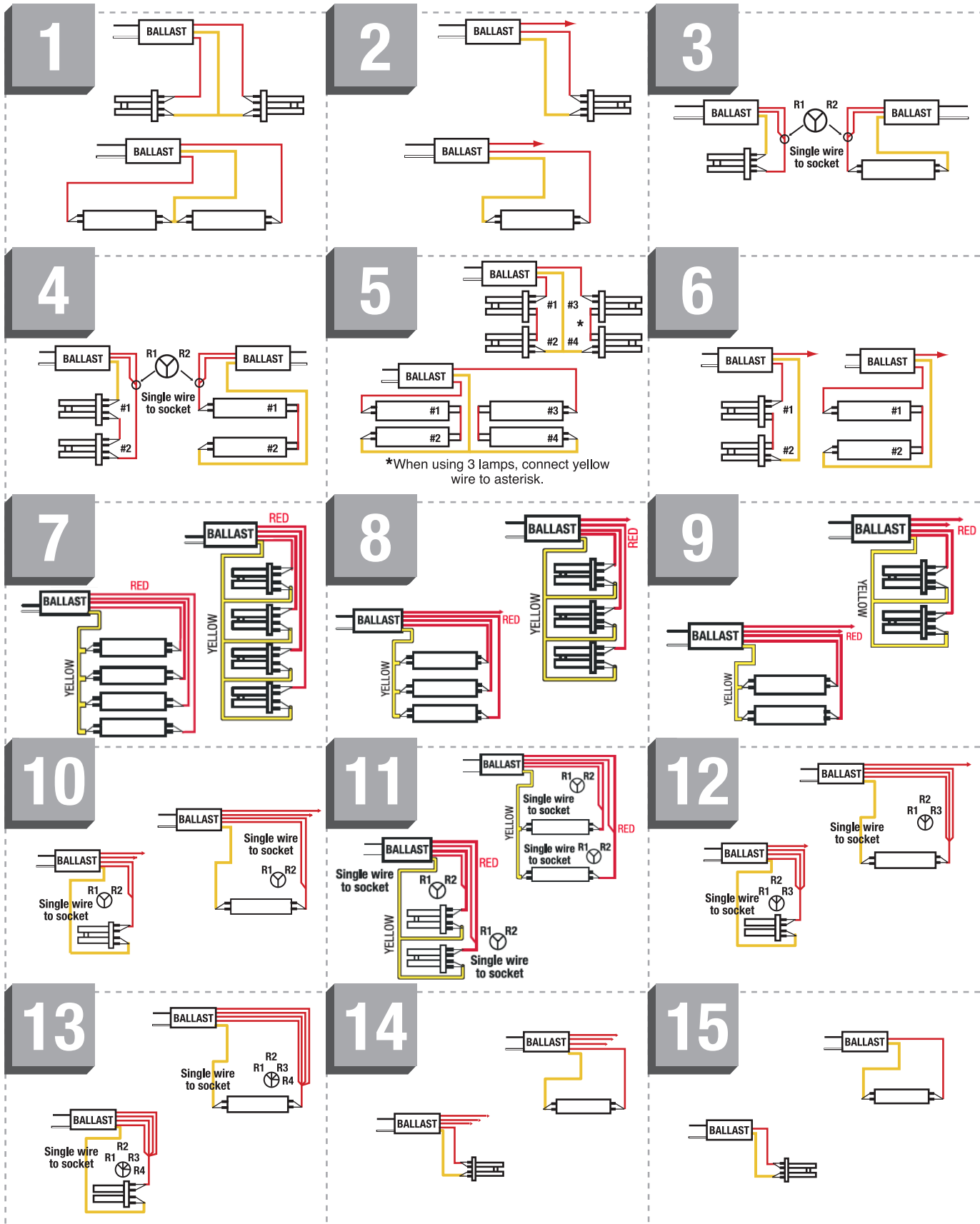
1 1/2" Diameter

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
1 X F72				2	14	3	14	10							2	3	14	10
2 X F72							9	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							9	11		22							11	11
3 X F84										25								
1 X F96 (60W Only)							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										23								
1 X F96 HO							12	13	14								12	13
2 X F96 HO (95W only)									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								

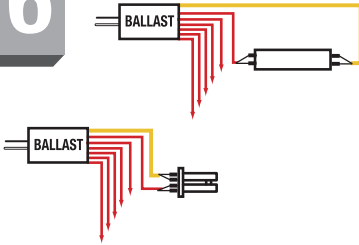
OPERATION & INSTALLATION TIPS

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.)

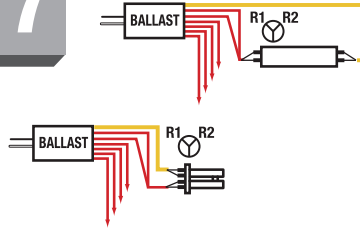
7. Cap and insulate any unused red power wire. → = Cap
8. When connecting two red power wires, they must be joined to make one wire before attaching to the socket.
9. BLS (Back Leads with Studs) Dimensions:
Stud Length: 5/8", Stud Size: 8/32, Center to Center: 2"
10. Running lamps in series will reduce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



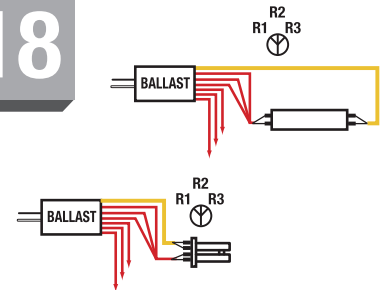
16



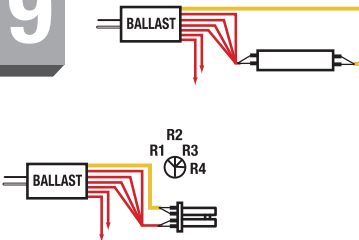
17



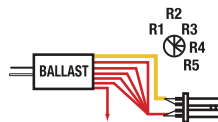
18



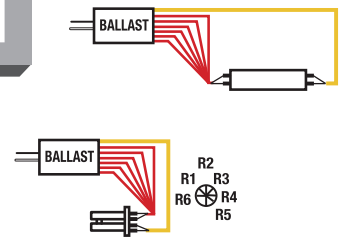
19



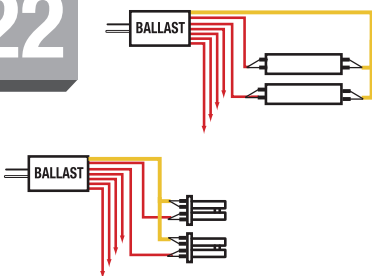
20



21



22



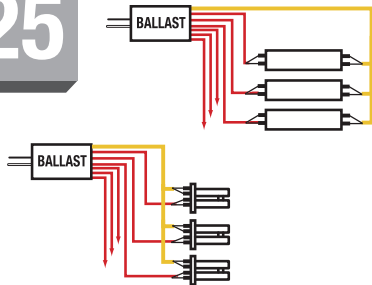
23



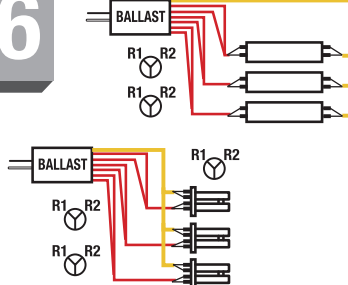
24



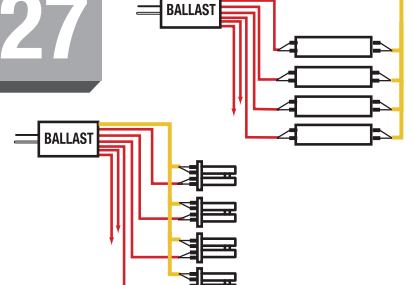
25



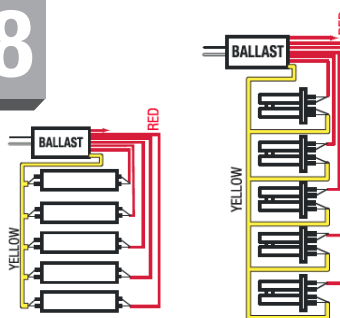
26



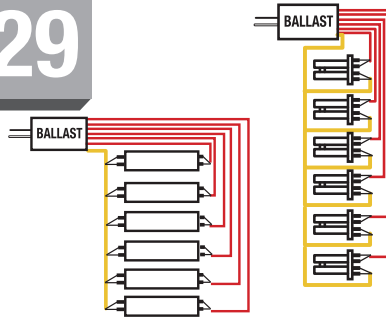
27



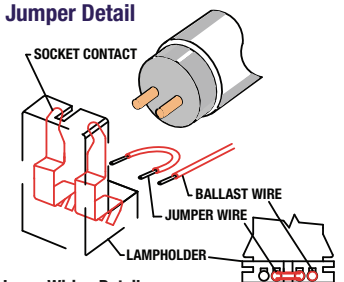
28



29



Wiring Jumper Detail



For other Lamp Wiring Details
Visit www.Fulham.com



**Trusted worldwide for cost
efficient lighting solutions.**

Fulham Headquarters (USA)

12705 S. Van Ness Avenue
Hawthorne, CA 90250
Tel: (323) 599-5000
Fax: (323) 754-9060
order@fulham.com
www.fulham.com

Fulham Company Ltd. (International)

Unit 10, 19/F, Kowloon Plaza
485 Castle Peak Road
Cheung Sha Wan, Kowloon
Hong Kong
Tel: +852-2314-4801
Fax: +852-2314-4186
anita-lau@fulham.com.hk

Fulham Electronic Co. Ltd. (North China)

No. 9 Xingchang Road, Nanshaozhen
Changping Science Park
Beijing 102200
P.R. China
Tel: +86-10-6073-5858
Fax: +86-10-6073-3765
glen.zhao@fulham.com.cn

Fulham Electronic Co. Ltd. (South China)

Room 1402, Block D, The First Place Wealth Centre
No. 200 Hongfu Road
The South Dongguan City, Guangdong Province
P.R. China
Tel: +0769-2202 7555
Fax: +0769-2202 7553
dengwq@fulham.com.cn

Fulham Electronic Co. Ltd. (Central China)

Room 312-315, Xing Yuan Technology Plaza
No 418, Gui Ping Road
Caohe-Jing Hi-Tech Park
Shanghai, P.R. China
Post Code: 200233
Tel: +86-021-6495-2777
Fax: +86-021-5426-5271
lizw@fulham.com.cn

Fulham Company Ltd. (Middle East)

LOB-2, No 127 P.O. Box 261051
Jebel Ali Free Zone, Dubai, United Arab Emirates
Tel: +9714-8873577 Fax: +9714-8873599
fulhamdubai@fulham.com

Fulham Latin America

(Latin America / Mexico / Caribbean)

17205 S. Van Ness Avenue
Hawthorne, CA 90250
Tel: (323) 599-5000
Fax: (323) 754-9060
order@fulham.com

Fulham Co., Inc. (Canada)

24 Kicking Horse Way
Port Moody, BC, Canada, V3H 0G5
Tel: (604)-288-2609
Fax: (604)-648-9065
thughes@fulham.com

Fulham (India) Pvt. Ltd.

343, Kaliandas Udyog Bhavan
Sadanaand Tandel Marg, Near Century Bazar
Prabhadevi, Mumbai - 400025
Tel: +91 22 66388775-9
gmalkani@fulham.com
sghose@fulham.com

Fulham (India) Pvt. Ltd.

Survey No. 26-3
Village Narhe
Taluka Haveli, District: Pune 411041
Tel: +91 20 24690703/4
Fax: +91 20 24690712
gmalkani@fulham.com
sghose@fulham.com

Fulham Company GmbH (Europe)

Karolinenstrasse 18
D-58507 Lüdenscheid
Germany
Handelsregister Iserlohn: HR B 6286
USt.-IdNr.: DE253959344
Fon: +49 2351 4327416
Fax: +49 2351 6567349
Mobile: +49 152-0-9838495
mhoffmeister@fulham.eu.com
aunger@fulham.eu.com

Fulham (Near East)

Teknik Aydinlatma San. Ve Tic. A.S.
Perpa Ticaret Merkezi A Blok Kat. 13 No: 2011
Sisli - Istanbul, Turkey
Tel: 0212 222 74 00 - 0212 222 87 89
Fax: 0212 222 80 10
info@teknikaydinlatma.com

www.fulham.com/WhatsApp

**Wiring
Diagrams
on the go**



Scan me



WorkHorse App

In the field? Scan the QR code above with your smartphone
for Fulham wiring diagrams on the go.