

LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

LAMPS

WORKHORSE

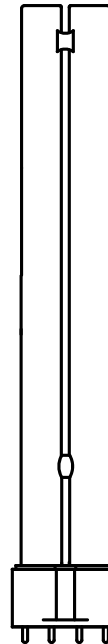
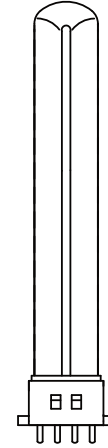
WHAM

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.

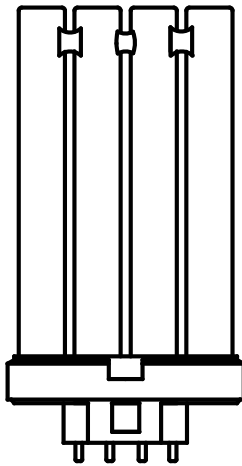
| | WORKHORSE | | | | | | | | WHAM | | LONGHORSE | | | | | | | | |
|-------------|-----------|------|-------|------|-------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|----|
| | WH 1 | WH 2 | WH 22 | WH 3 | WH 33 | WH 4 | WH 5 | WH 6 | WH 7 | WH 8 |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

TWIN

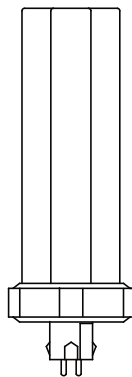


LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

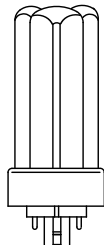
FLAT QUAD



QUAD



TRIPLE



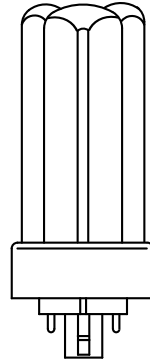
| LAMPS | WORKHORSE | | | | | | | | WHAM | | LONGHORSE | | | | | | | | |
|------------------|-----------|------|-------|------|-------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|----|
| | WH 1 | WH 2 | WH 22 | WH 3 | WH 33 | WH 4 | WH 5 | WH 6 | WH 7 | WH 8 | WM 1 | WM 2 | LH 1 | LH 2 | LH 3 | LH 4 | LH 5 | LH 6 | |
| 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 |

LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

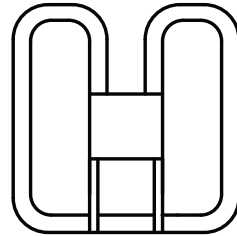
1. Find your lamp type.
2. Find the quantity and wattage of lamps.
3. Look across and find the ballast you need.
4. The colored number represents wiring diagram.

| 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 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 | | | | | 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 |
| 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 |
| 2 X 20W | | | | | 9 | | | 9 | 11 | | | | | | | | | 9 |
| 4 X 20W | | | | | | | | | 7 | | | | | | | | | |
| 1 X 22W | | 3 | 2 | 2 | 14 | 3 | | 14 | 14 | | | 3 | | 3 | 2 | 3 | | 14 |
| 2 X 22W | | | | | 9 | | | 9 | 11 | | | | | | | | | 9 |
| 4 X 22W | | | | | | | | | 7 | | | | | | | | | |
| 1 X 32W | | | 3 | 3 | 14 | | | 14 | 10 | | | | | | 3 | | | 14 |
| 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 |
| 2 X 40W | | | | | | | | 9 | 11 | | | | | | | | | 9 |
| 4 X 40W | | | | | | | | | 7 | | | | | | | | | |
| 1 X 22+32 | | | | 1 | | | | 9 | 11 | | | | | | 1 | | | 9 |
| 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 |

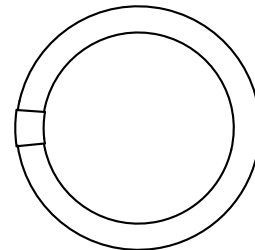
TRIPLE



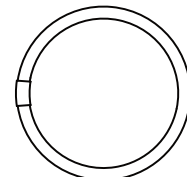
2-D



CIRCLINE

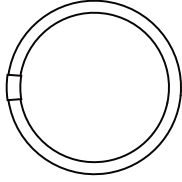


T5 CIRCLINE



LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

T5 CIRCLINE

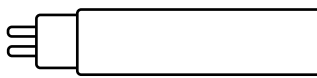


T2 LINEAR



1/4" DIA

T5 LINEAR



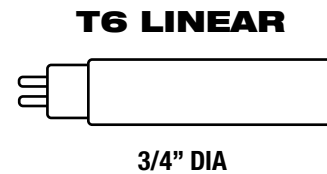
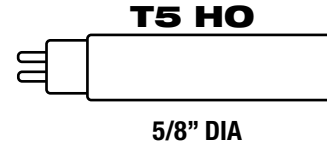
5/8" DIA

| 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 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 | | 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 |
| 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 |

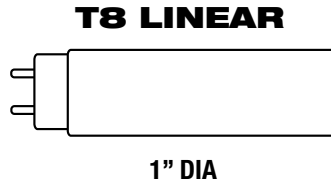
LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

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.

| 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 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 | 25 | | | | | | | | | |
| 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 | | |



LAMP CHART for WORKHORSE, WHAM AND LONGHORSE



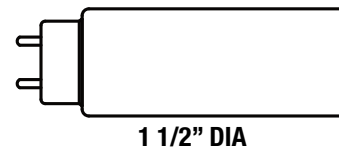
| LAMPS | WORKHORSE | | | | | | | | WHAM | | LONGHORSE | | | | | | | |
|-------------------|-----------|------|-------|------|-------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|
| | WH 1 | WH 2 | WH 22 | WH 3 | WH 33 | WH 4 | WH 5 | WH 6 | WH 7 | WH 8 | WM 1 | WM 2 | LH 1 | LH 2 | LH 3 | LH 4 | LH 5 | LH 6 |
| 3 X 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 | | 3 | | 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 |
| 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 | | | | | | | | |

LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

| 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 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 | | | | | | | | | 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 | 1 | 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 | | |

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.

T12 LINEAR



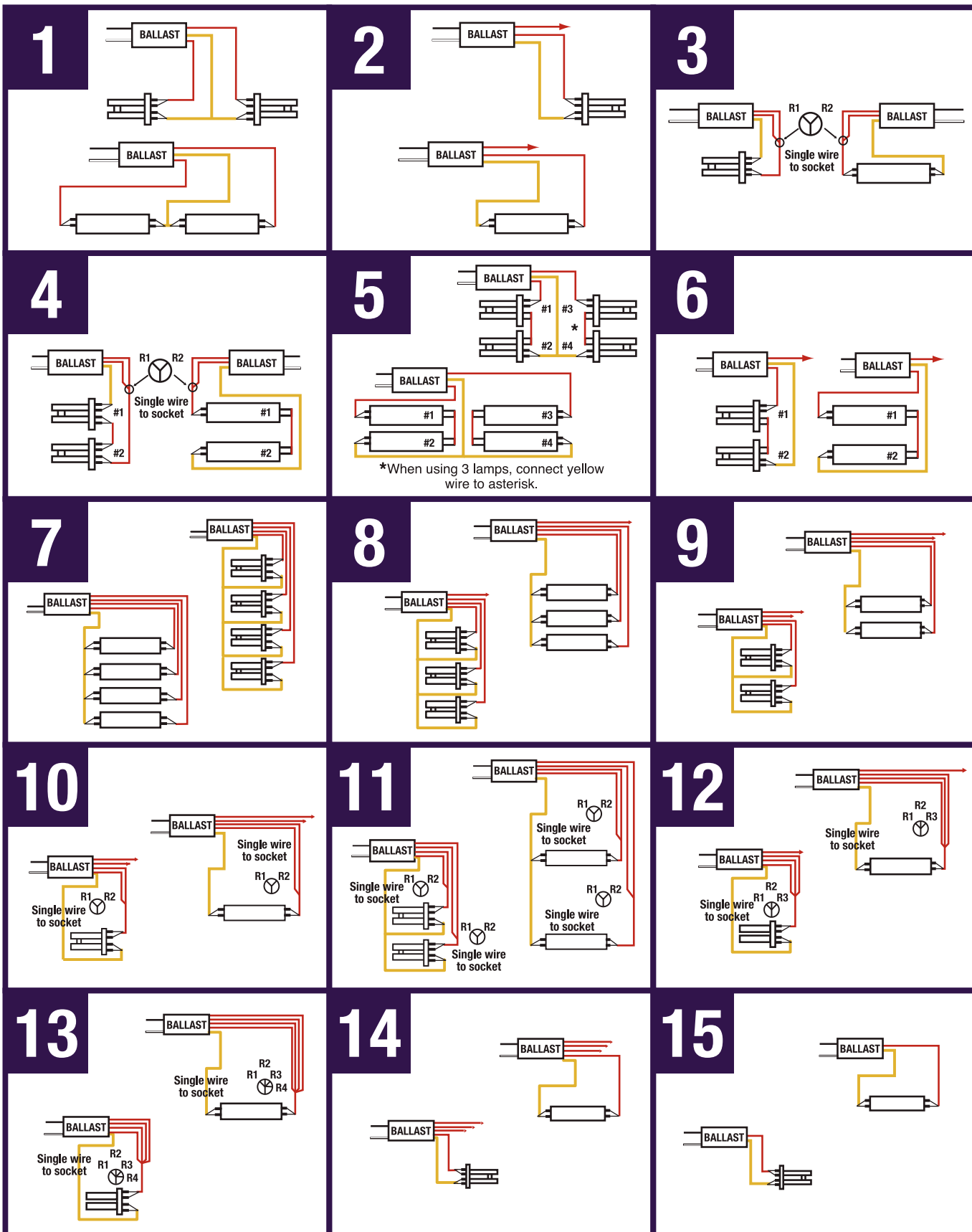
LAMP CHART for WORKHORSE, WHAM AND LONGHORSE

| 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 | | | | | | | | 14 | 10 | | | | | | | | 14 | 10 |
| 2 X F96 | | | | | | | | 9 | 11 | 22 | | | | | | | 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 | | | | | | | | |



WIRING DIAGRAMS

for WORKHORSE, WHAM AND LONGHORSE

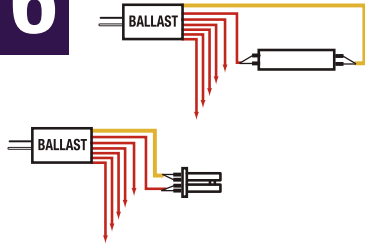


OPERATION & INSTALLATION TIPS

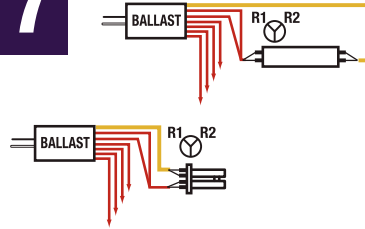
1. Connect both pin sets of the socket before connecting "RED" & "YELLOW" wires.
2. Ground case in accordance with the "National Electric Code."
3. With Linear lamp use a starting aid.
4. Ballast case temperature can not exceed 70°C.
5. Remote mounting distance varies with lamp type. Contact customer 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.
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)

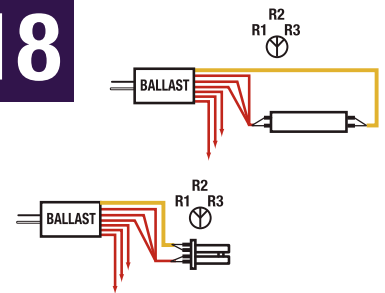
16



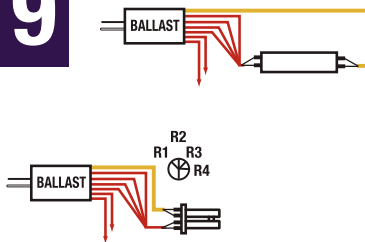
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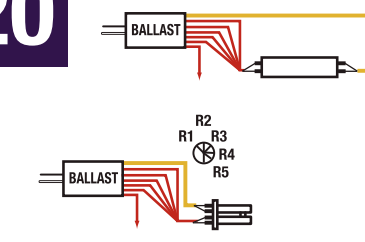
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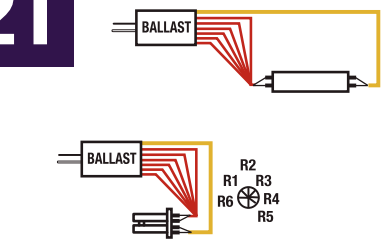
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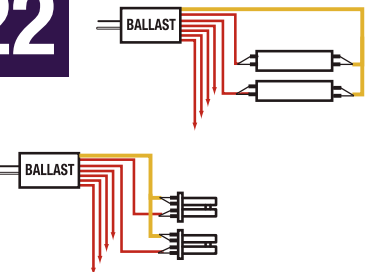
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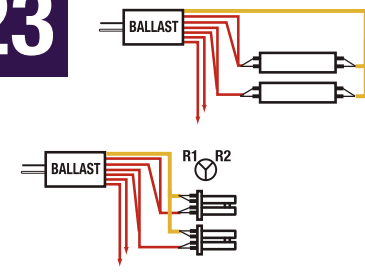
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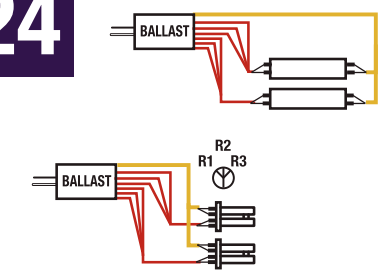
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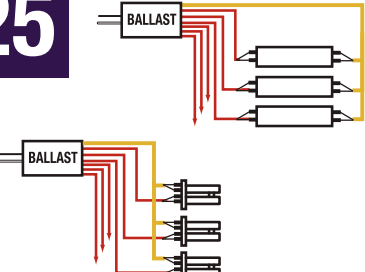
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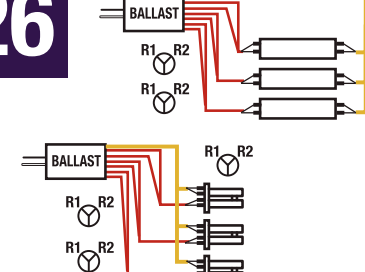
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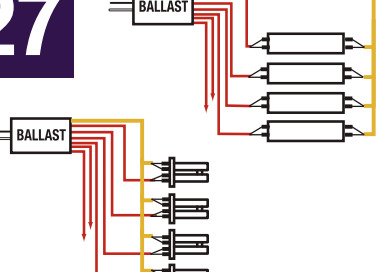
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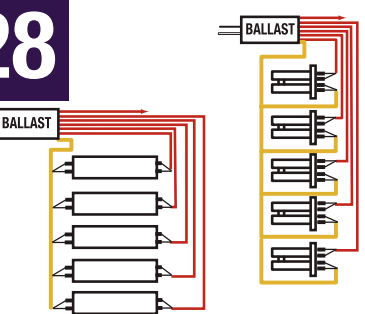
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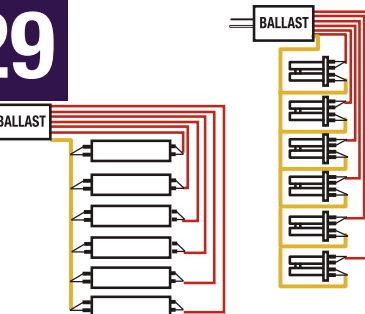
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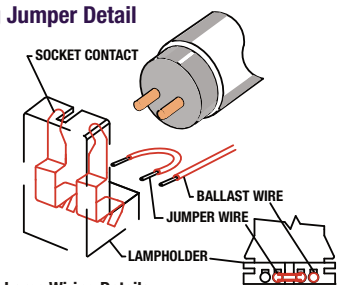
28



29



Wiring Jumper Detail



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