

| REV | DATE | RECORD | DESN | CHCK |
|-----|----------|-----------------|------|------|
| A | 12/23/13 | ECN # 140120013 | RC | KC |

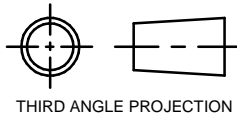
| 2 UP LED BOARD | |
|----------------|-------------|
| ITEM # 13 P/N | DESCRIPTION |
| 93047432-3012 | 3000K |
| 93047432-3014 | 4100K |
| 93047432-3015 | 5100K |

| 26 | 80115 | 16 INCHES | RED 18 AWG WIRE | |
|------|-----------------|-----------|--------------------------------------|-------|
| 25 | 80104 | 16 INCHES | BLACK 18 AWG WIRE | |
| 24 | A84048 | 2 | NUT 1/4-20 HEX SS | |
| 23 | 93049759 | 1 | BRACKET FGL/FGS LED MOUNTING | |
| 22 | A86002 | 1 | SCR-1/4-20x7 LG. SS THRD.STUD | |
| 21 | 88552 | 1 | FEMALE 4-PIN QUICK DISCONNECT | |
| 20 | 88548 | 1 | FEMALE 2-PIN QUICK DISCONNECT | |
| 19 | 88110 | 6 | Socket, Quick Disconnect | |
| 18 | A74011 | 1 | TERMINAL-FEMALE | |
| 17 | A74010 | 1 | TERMINAL-MALE | |
| 16 | 93023746 | 4 | SCR-6-32x1/4 PHH PHMS SS | |
| 15 | 93049774 | 2 | PLATE LED UPLIGHT | |
| 14 | 93045602 | 2 | 93045602 Pico Emmitter, Acrylic | |
| 13 | SEE CHART | 2 | ASSY-PCB 2LED BOARD 1X2 | |
| 12 | 93049762 | 1 | BRACKET LED UPLIGHT FGL-FGS | |
| 11 | A84032 | 2 | SCR-8-32X1/2 PHH PHMS SS | |
| 10 | 93049763 | 1 | BRACKET LIFESHIELD Y-LED | |
| 9 | A74106 | 2 | WIRE TERMINAL | |
| 8 | A74026 | AR | CABLE TIE GT50S2 BIN ITEM | |
| 7 | 93017851 | 2 | SCR-4-40x3/16 PHH PH MS SS | |
| 6 | 93042082-080051 | 1 | SWITCH THERMAL N. O. | |
| 5 | A84041 | 3 | SETSCR-1/4-20x1 SS | |
| 4 | A84051 | 5 | SCR-1/4-20x1/2 BTN HD CAP SS | |
| 3 | A56332-19 | 3 | STANDOFF 3/8"DIA. X 11.5" | |
| 2 | 93041672 | 1 | 93041672-XXXX 32LED Optical Assembly | |
| 1 | 93046560 | 1 | FGL/FGS LED MOUNTING PLATE | |
| ITEM | PART # | QTY | DESCRIPTION | NOTES |

PARTS LIST

UNSPECIFIED TOLERANCES: INCHES
X.X=±0.1 X.XX=±0.03 X.XXX=±0.010
FRACTIONS=±1/32 ANGULAR TOLERANCE=±1°

DIMENSIONS IN INCHES
DIMENSIONS IN [] IN MM
CONFORMS TO ASME Y14.5M
DO NOT SCALE PRINT



DRAWN: rcarrillo 12/23/13
CHECKED BY: --- --/--/--
ENGINEERING: KC 12/23/13
CATALOG NO. FGS Y-LED



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RETROFIT KIT Y-LED FGS SAL LENS
WITH CCO OPION

| | | | | | |
|-----------|-----------|-------------------------|--|----------------------|-----------------|
| MATERIAL: | | FINISH: | | PART NO. 93049902 | |
| SCALE | SIZE B | DRAWING NO. 93049902 | | REV. A | SHT 1 1 SHTS |



B

B

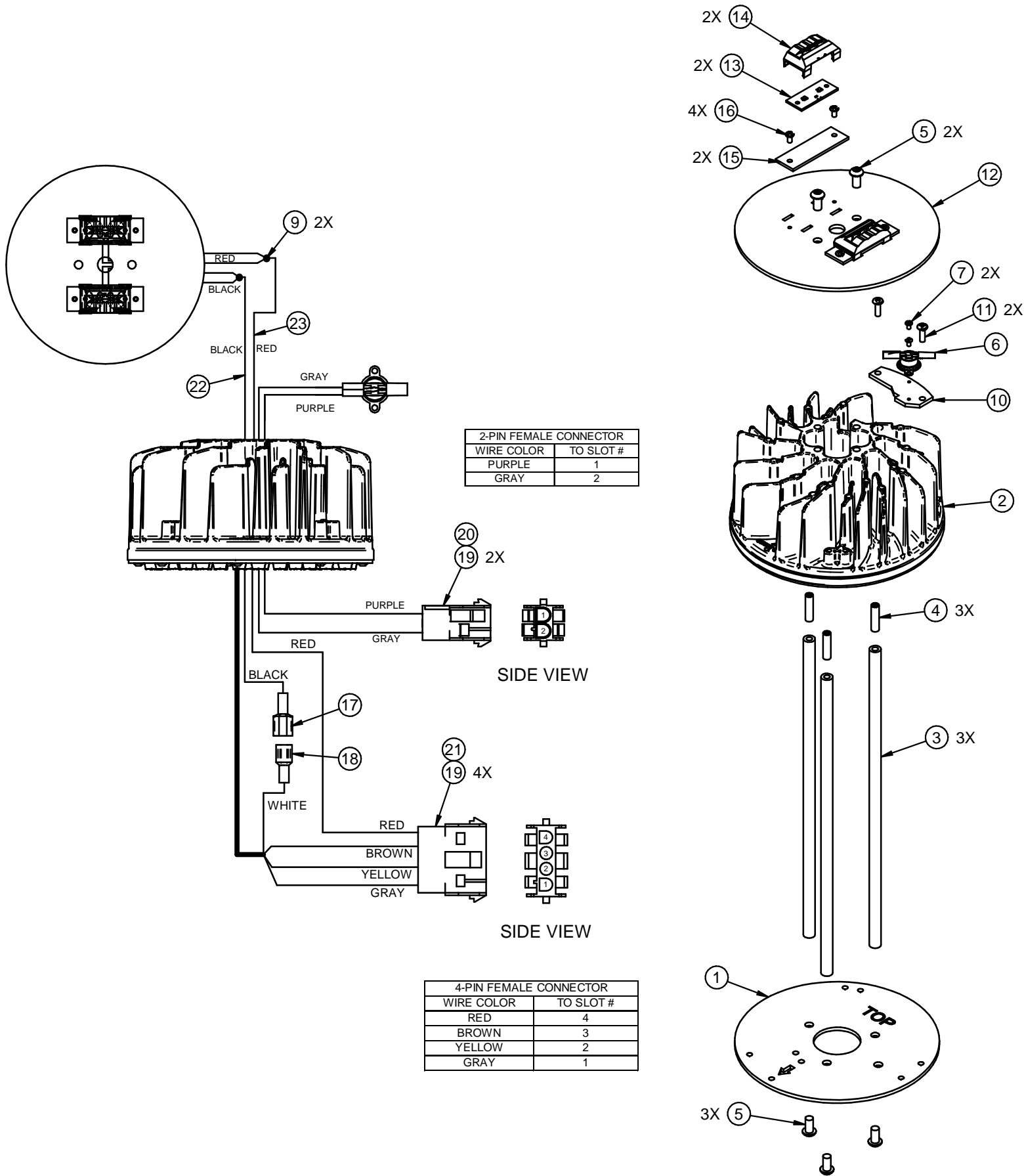
A

A

| REV | DATE | RECORD | DESN | CHCK |
|-----|----------|-----------------|------|------|
| A | 12/20/13 | ECN # 140120013 | RC | KC |

B

B



| 2 UP LED BOARD | |
|----------------|-------------|
| ITEM # 13 P/N | DESCRIPTION |
| 93047432-3012 | 3000K |
| 93047432-3014 | 4100K |
| 93047432-3015 | 5100K |

| 23 | 80115 | 16 INCHES | RED 18 AWG WIRE | |
|------|-----------------|-----------|---------------------------------|-------|
| 22 | 80104 | 16 INCHES | BLACK 18 AWG WIRE | |
| 21 | 88552 | 1 | FEMALE 4-PIN QUICK DISCONNECT | |
| 20 | 88548 | 1 | FEMALE 2-PIN QUICK DISCONNECT | |
| 19 | 88110 | 6 | Socket, Quick Disconnect | |
| 18 | A74011 | 1 | TERMINAL-FEMALE | |
| 17 | A74010 | 1 | TERMINAL-MALE | |
| 16 | 93023746 | 4 | SCR-6-32x1/4 PHH PHMS SS | |
| 15 | 93049774 | 2 | PLATE LED UPLIGHT | |
| 14 | 93045602 | 2 | 93045602 Pico Emmitter, Acrylic | |
| 13 | SEE CHART | 2 | ASSY-PCB 2LED BOARD 1X2 | |
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| 10 | 93049763 | 1 | BRACKET LIFESHIELD Y-LED | |
| 9 | A74106 | 2 | WIRE TERMINAL | |
| 8 | A74026 | AR | CABLE TIE GT50S2 BIN ITEM | |
| 7 | 93017851 | 2 | SCR-4-40x3/16 PHH PH MS SS | |
| 6 | 93042082-080051 | 1 | SWITCH THERMAL N. O. | |
| 5 | A84051 | 5 | SCR-1/4-20x1/2 BTN HD CAP SS | |
| 4 | A84041 | 3 | SETSCR-1/4-20x1 SS | |
| 3 | A56332-19 | 3 | STANDOFF 3/8"DIA. X 11.5" | |
| 2 | 93041672 | 1 | 32LED Optical Assembly | |
| 1 | 93046560 | 1 | FGL/FGS LED MOUNTING PLATE | |
| ITEM | PART # | QTY | DESCRIPTION | NOTES |

PARTS LIST

| | |
|---|--|
| UNSPECIFIED TOLERANCES: INCHES X.X=±0.1 X.XX=±0.03 X.XXX=±0.010 FRACTIONS=±1/32 ANGULAR TOLERANCE=±1° | |
| DIMENSIONS IN INCHES DIMENSIONS IN [] IN MM CONFORMS TO ASME Y14.5M DO NOT SCALE PRINT | DRAWN: rcarrillo 12/20/13 CHECKED BY: --- --/--/-- ENGINEERING: KC 12/20/13 CATALOG NO. FGS Y-LED |
| | THIRD ANGLE PROJECTION |



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RETROFIT KIT Y-LED FGS SAL LENS

| | | | | | |
|-----------|-----------|-------------------------|--|----------------------|-----------------|
| MATERIAL: | | FINISH: | | PART NO. 93049900 | |
| SCALE | SIZE B | DRAWING NO. 93049900 | | REV. A | SHT 1 1 SHTS |



A

A

Installation Instructions

Fixture: FEDERAL GLOBE™ (FGL/ FGS) FOR LED

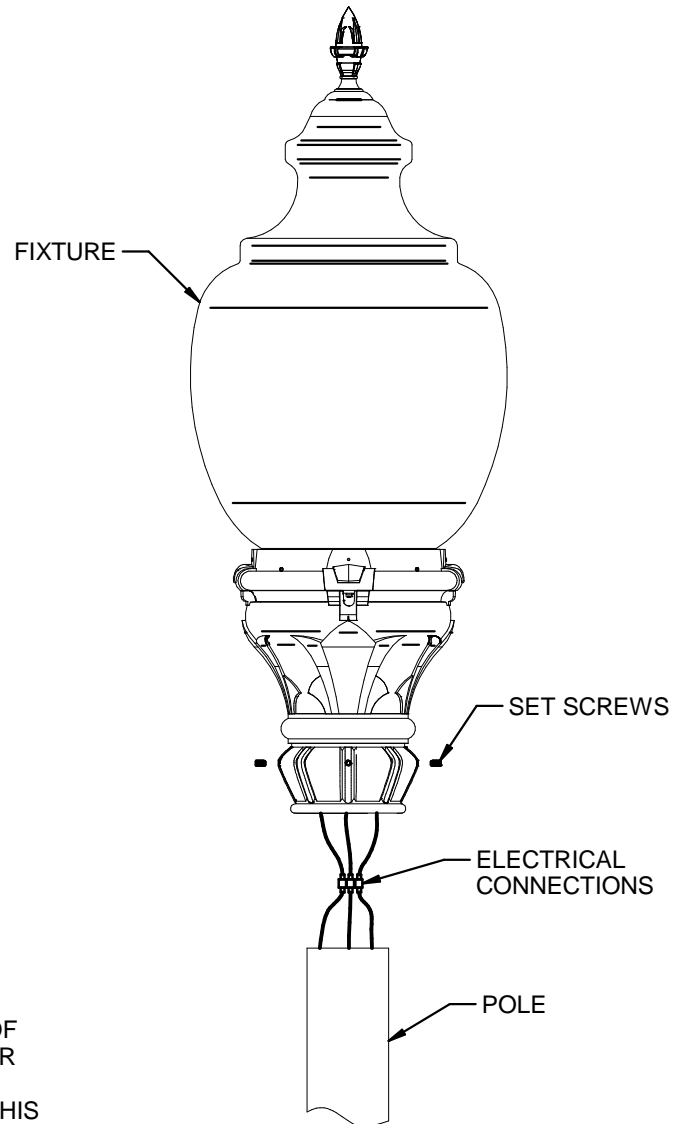


WARNING: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

MAINTENANCE: A regularly scheduled maintenance program should be established to retain optimum light output and reduce heat retention. Dusting with a soft, clean, dry cloth is normally sufficient for the optics.

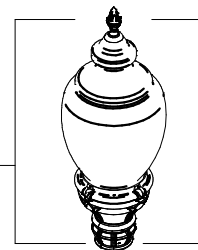
CAUTION: All wiring must be done by a qualified electrician. KEEP THIS SHEET FOR FUTURE REFERENCE.

1. Be sure all power is **OFF**.
2. Make wire connections from incoming supply to fixture as shown. (White to White, Black to Black and Green to Green) (Note: fixture must be grounded to incoming equipment ground supply.)
3. Slip fixture over pole top or tenon. Secure with four (4) supplied stainless steel set screws.
4. Turn power ON.



WARNING:

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, AND/OR OTHER REPRODUCTIVE HARM. THOROUGHLY WASH HANDS AFTER INSTALLING, HANDLING, CLEANING OR OTHERWISE TOUCHING THIS PRODUCT.



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ Federal Globe Small Scale (FGS) For SAL Lens With CCO Optical System

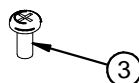
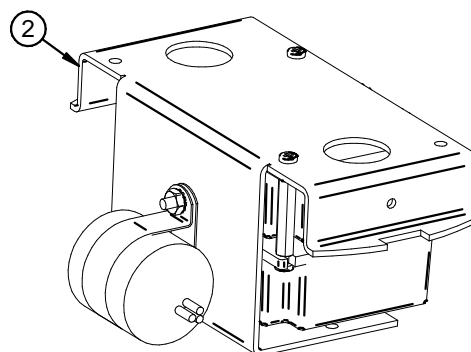
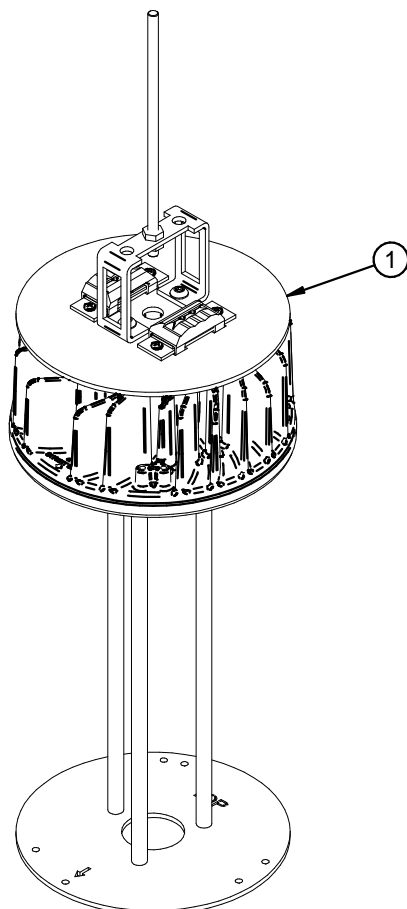


WARNING: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

MAINTENANCE: A regularly scheduled maintenance program should be established to retain optimum light output and reduce heat retention. Dusting with a soft, clean, dry cloth is normally sufficient for the optics.

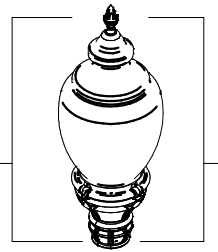
CAUTION: All wiring must be done by a qualified electrician. KEEP THIS SHEET FOR FUTURE REFERENCE.

UPGRADE KIT CONTENTS



PARTS LIST

| ITEM # | QTY | PART # | DESCRIPTION |
|--------|-----|----------|---|
| 1 | 1 | 93049902 | RETROFIT KIT Y-LED SAL LENS WITH CCO OPTION |
| 2 | 1 | 93049901 | RETROFIT KIT Y-LED DRIVER ASSY |
| 3 | 3 | A84033 | SCR-8-32 x 3/8" PHLPS PHMS S/S |



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ Federal Globe Small Scale (FGS) For SAL Lens With CCO Optical System

1. REMOVE LENS

⚠ TURN OFF ALL POWER TO THE UNIT AND TAKE PROPER SAFETY PRECAUTION. FAILURE TO DO SO MAY RESULT IN SERIOUS PERSONAL INJURY.

1. REMOVE FINIAL BY TURNING IT COUNTER CLOCKWISE. (FIG. 1-1)
2. REMOVE GASKET AND TOP LENS ASSEMBLY. DO NOT DISCARD. (FIG. 1-1)
3. WITH A PHILLIPS HEAD SCREW DRIVER LOOSEN THREE SCREWS AND REMOVE CCO OPTICAL SYSTEM FROM CAST LID. (FIG. 1-2)

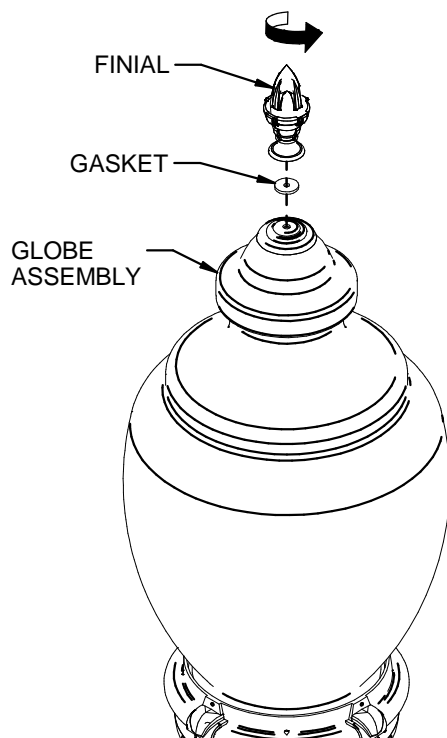


FIG. 1-1

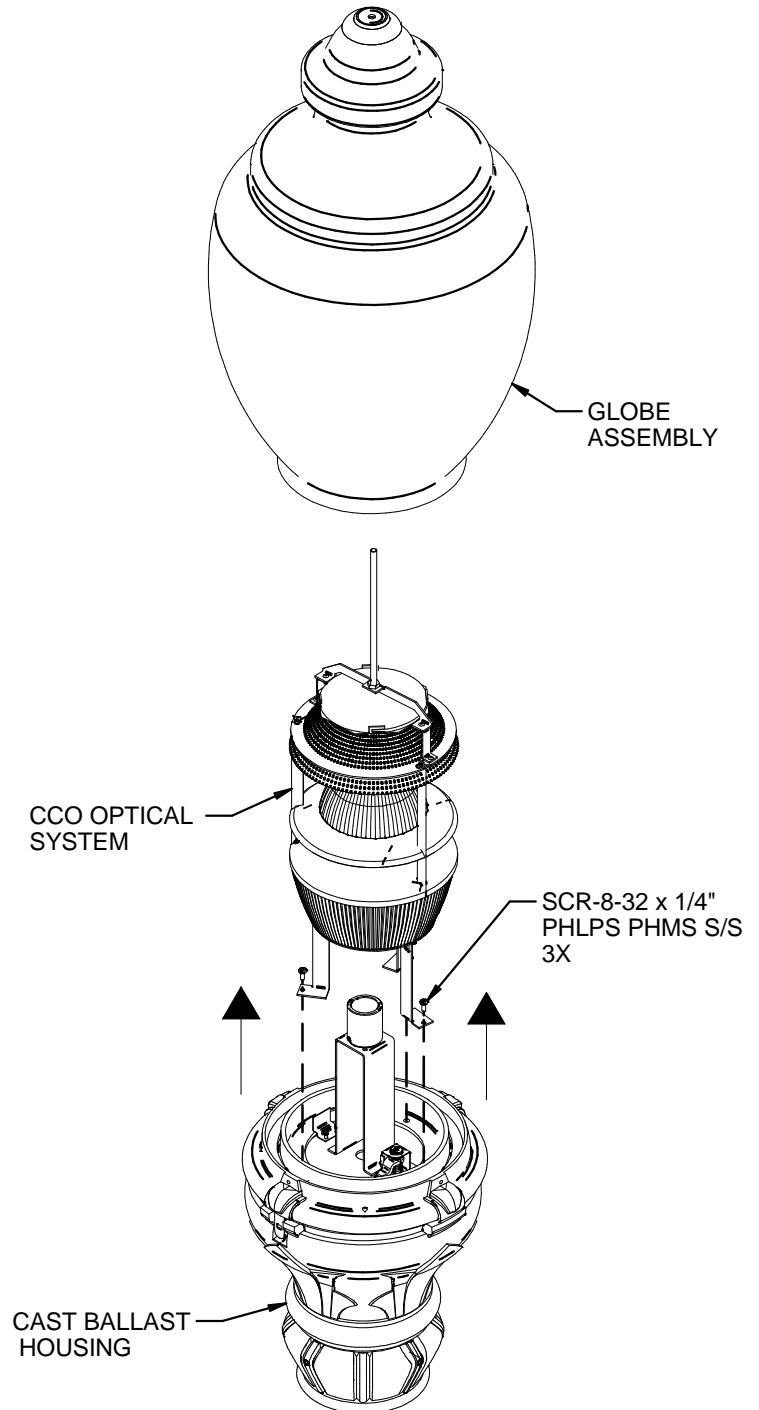
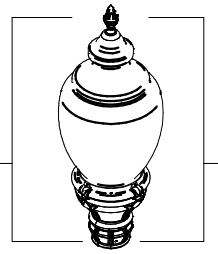


FIG. 1-2



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ Federal Globe Small Scale (FGS) For SAL Lens With CCO Optical System

2. REMOVE EXISTING BALLAST ASSEMBLY AND SOCKET ASSEMBLY

1. TILT CAST LID TO THE SIDE BY PULLING LATCH BACKWARD. (FIG. 2-1)
2. DISENGAGE QUICK-DISCONNECT AND PULL APART. (FIG. 2-1)
3. REMOVE SOCKET ASSEMBLY BY TURNING TURN-LATCH COUNTER CLOCKWISE. (FIG. 2-2)
4. REMOVE BALLAST ASSEMBLY. (FIG. 2-3)

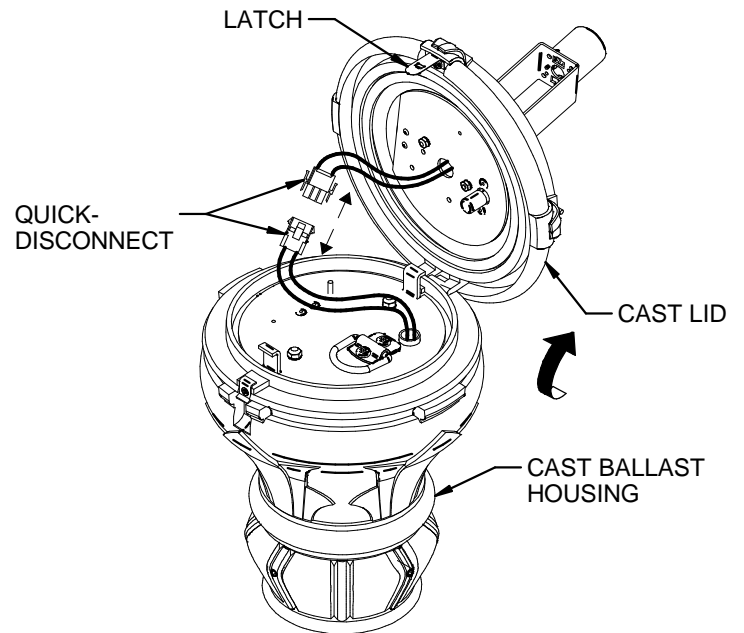


FIG. 2-1

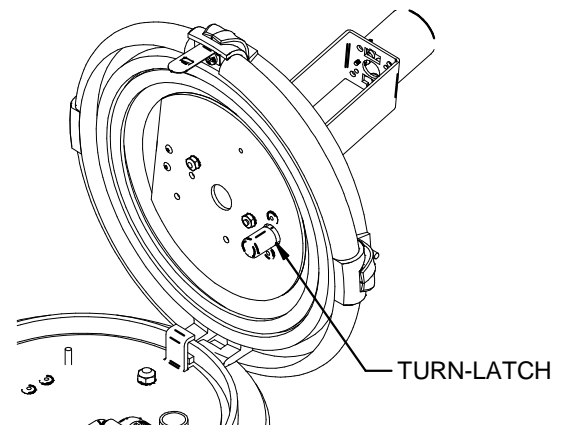


FIG. 2-2

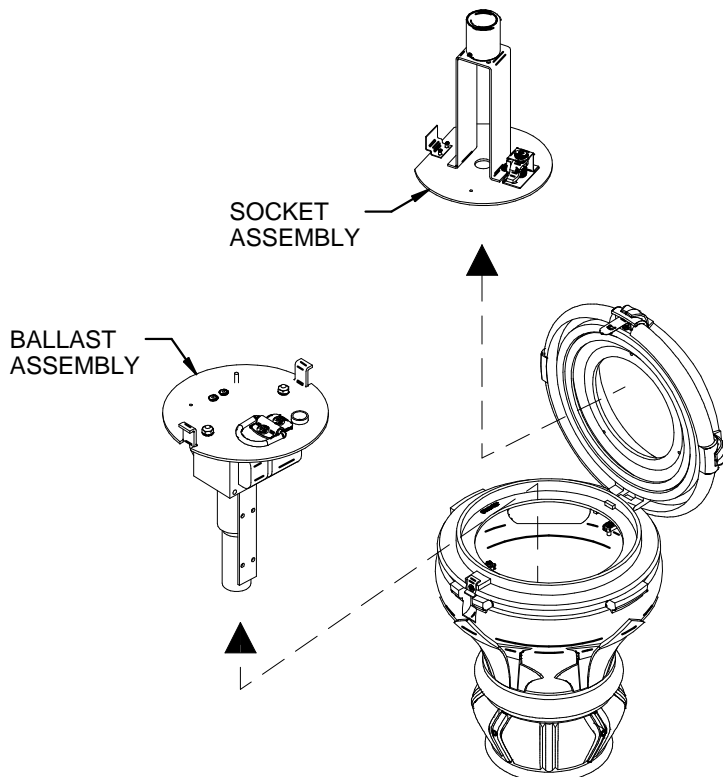
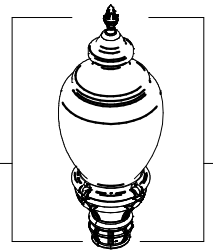


FIG. 2-3



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ Federal Globe Small Scale (FGS) For SAL Lens With CCO Optical System

3. INSTALLING 32-LED Y6 MODULE AND LENS

1. INSTALL Y-MODULE TO CAST LID **WITH ARROW ON MOUNTING PLATE POINTING TO LATCH ON CAST LID** USING PROVIDED 8-32 X 3/8" SCREWS. (FIG. 3-1)
ARROW DENOTE STREET SIDE.
2. PLACE GLOBE ASSEMBLY OVER CAST LID. (FIG. 3-2)
3. INSTALL GASKET AND FINIAL. (FIG. 3-2)
4. INSTALLATION COMPLETE. (FIG. 3-2)

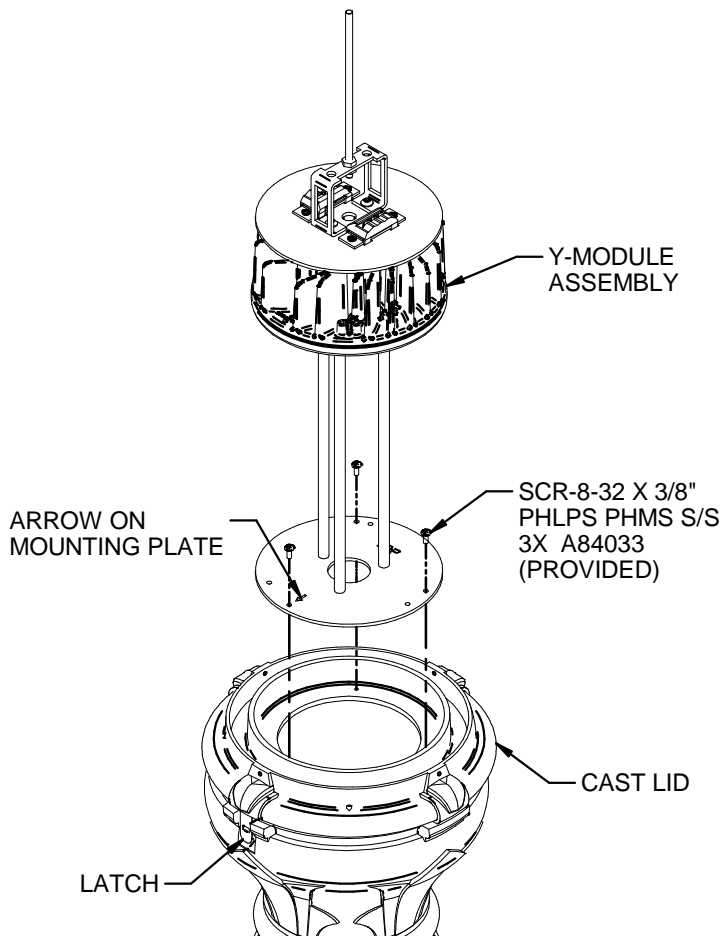


FIG. 3-1

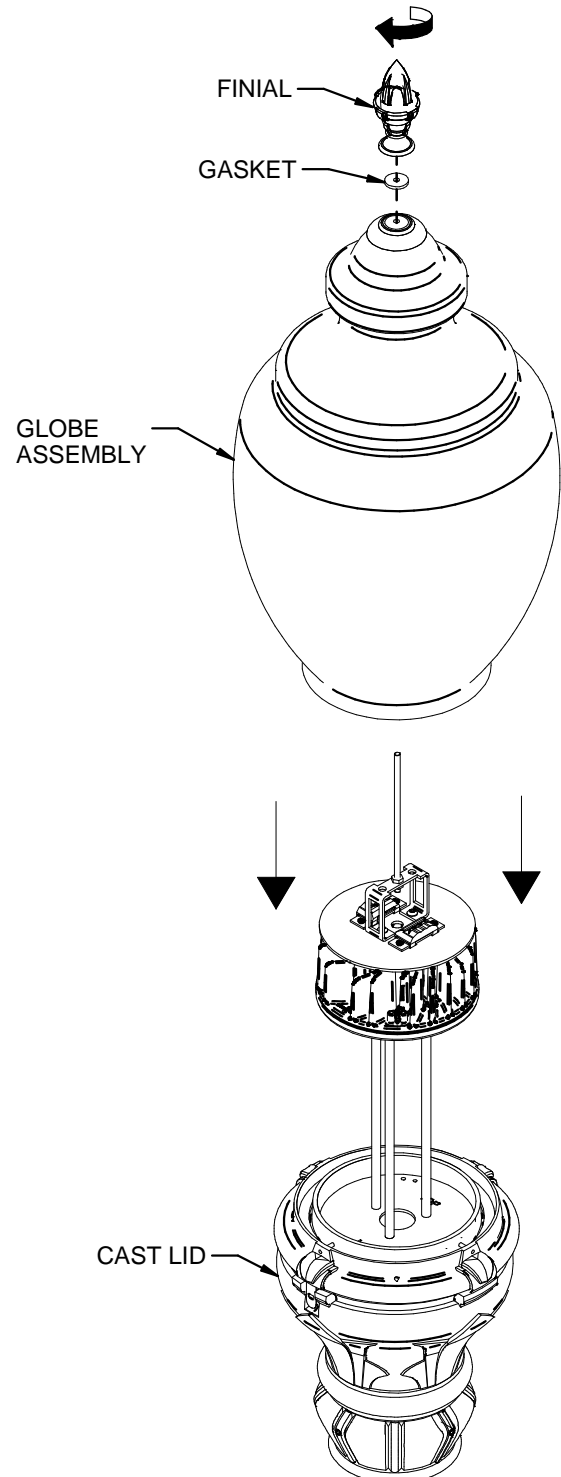
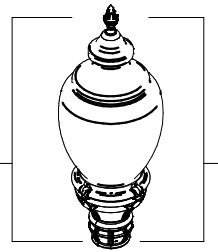


FIG. 3-2



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ Federal Globe Small Scale (FGS) For SAL Lens With CCO Optical System

4. INSTALLING DRIVER ASSEMBLY

1. TILT GLOBE ASSEMBLY TO THE SIDE BY PULLING LATCH BACKWARD. (FIG. 4-1)
2. INSTALL DRIVER ASSY. (FIG. 4-1)
3. MAKE WIRE CONNECTIONS BY CONNECTING QUICK DISCONNECT FROM DRIVER ASSY TO SOCKET ASSY AND LIFESHIELD QUICK DISCONNECT. (FIG. 4-2)
4. CLOSE FIXTURE, ENSURE LATCH SNAPS BACK TO ITS ORIGINAL POSITION. (FIG. 4-3)
5. MAKE WIRE CONNECTIONS FROM INCOMING TO DRIVER ASSY: WHITE TO WHITE, BLACK TO BLACK AND GREEN TO GREEN. (FIG. 4-3)
6. INSTALLATION COMPLETE.

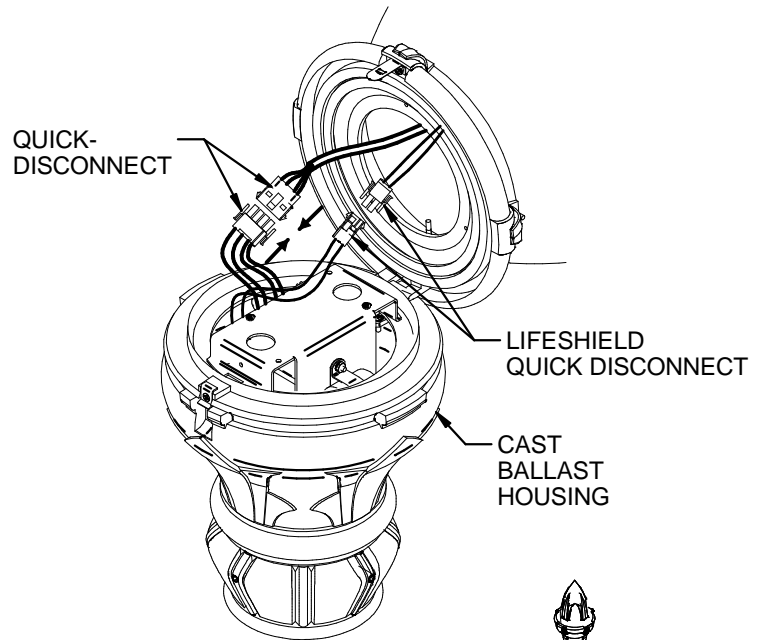


FIG. 4-2

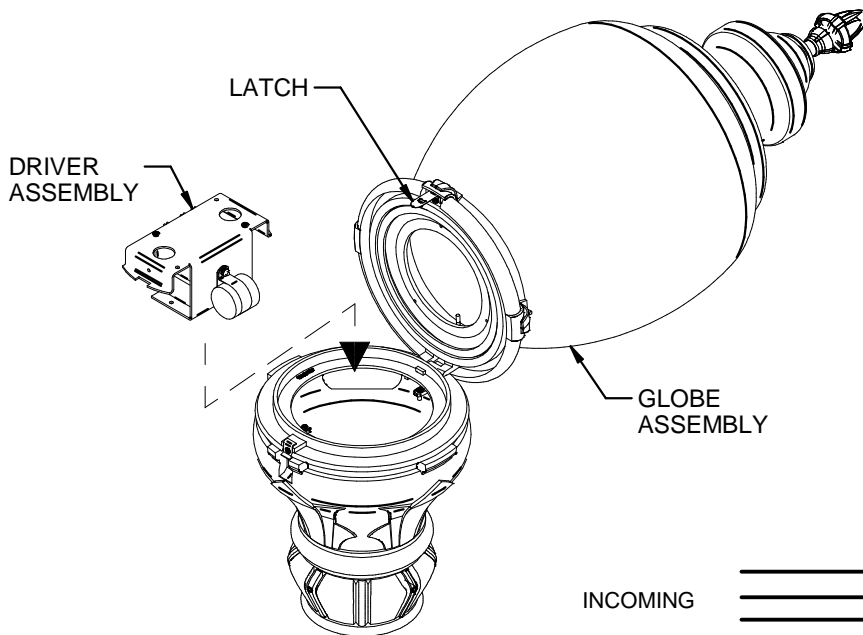


FIG. 4-1

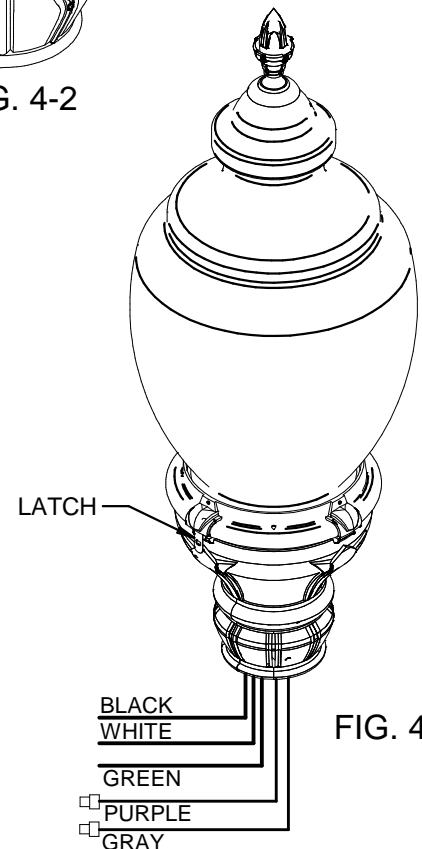
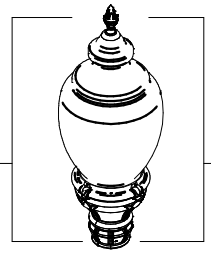


FIG. 4-3



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ - Federal Globe Small Scale (FGS) FOR SAL LENS FOR GR3/ GR5/ BLO

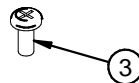
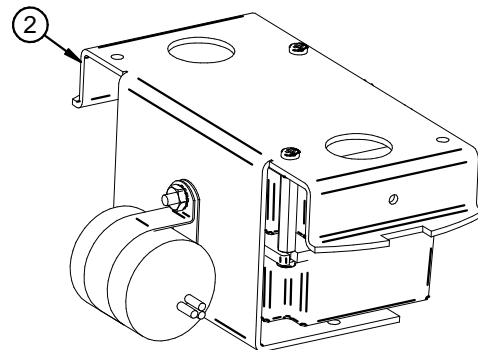
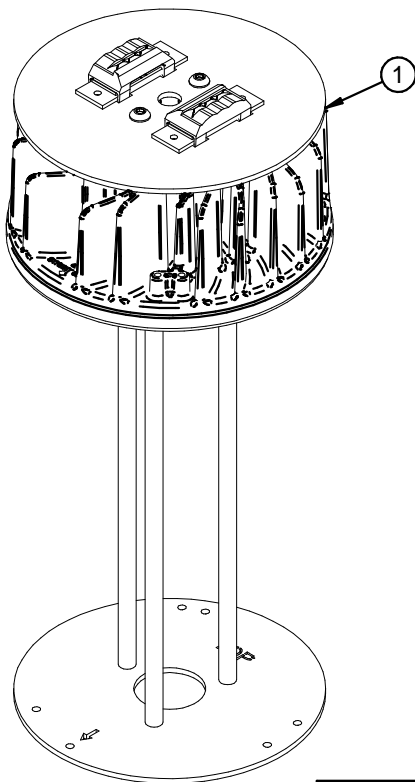


WARNING: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

MAINTENANCE: A regularly scheduled maintenance program should be established to retain optimum light output and reduce heat retention. Dusting with a soft, clean, dry cloth is normally sufficient for the optics.

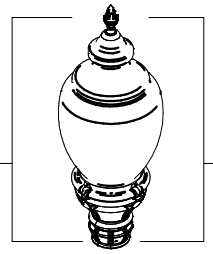
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UPGRADE KIT CONTENTS



PARTS LIST

| ITEM # | QTY | PART # | DESCRIPTION |
|--------|-----|----------|------------------------------------|
| 1 | 1 | 93049900 | RETROFIT KIT Y-LED FGS SAL LENS |
| 2 | 1 | 93049901 | RETROFIT KIT Y-LED FGS DRIVER ASSY |
| 3 | 3 | A84033 | SCR-8-32 x 3/8" PHLPS PHMS S/S |



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ - Federal Globe Small Scale (FGS) FOR SAL LENS FOR GR3/ GR5/ BLO

1. REMOVE LENS

⚠ TURN OFF ALL POWER TO THE UNIT AND TAKE PROPER SAFETY PRECAUTION. FAILURE TO DO SO MAY RESULT IN SERIOUS PERSONAL INJURY.

1. REMOVE GLOBE ASSEMBLY BY LOOSEN FOUR SET SCREWS. (FIG. 1-1)
2. IF GR3/GR5 OPTION IS PRESENT, REMOVE BY REMOVING TWO 8-32 x 1/4" SCREWS. (FIG. 1-2)

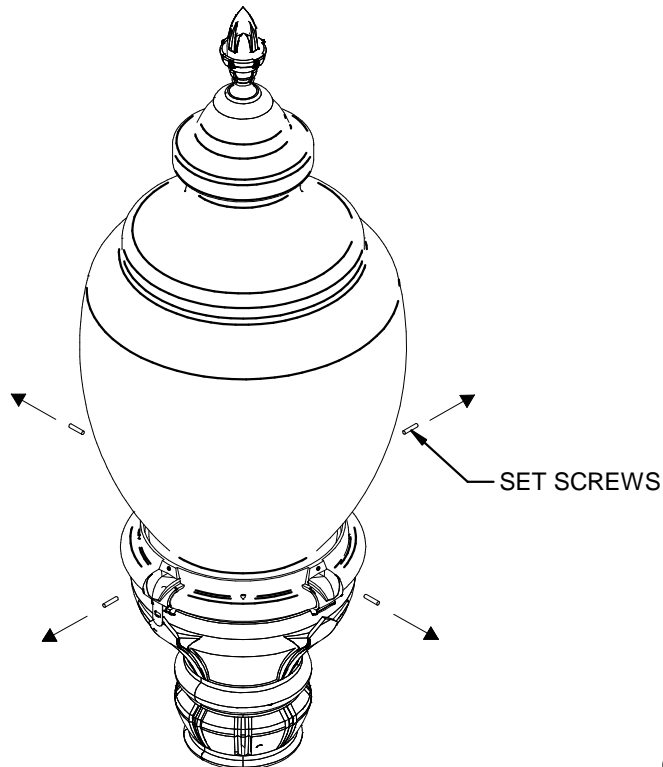


FIG. 1-1

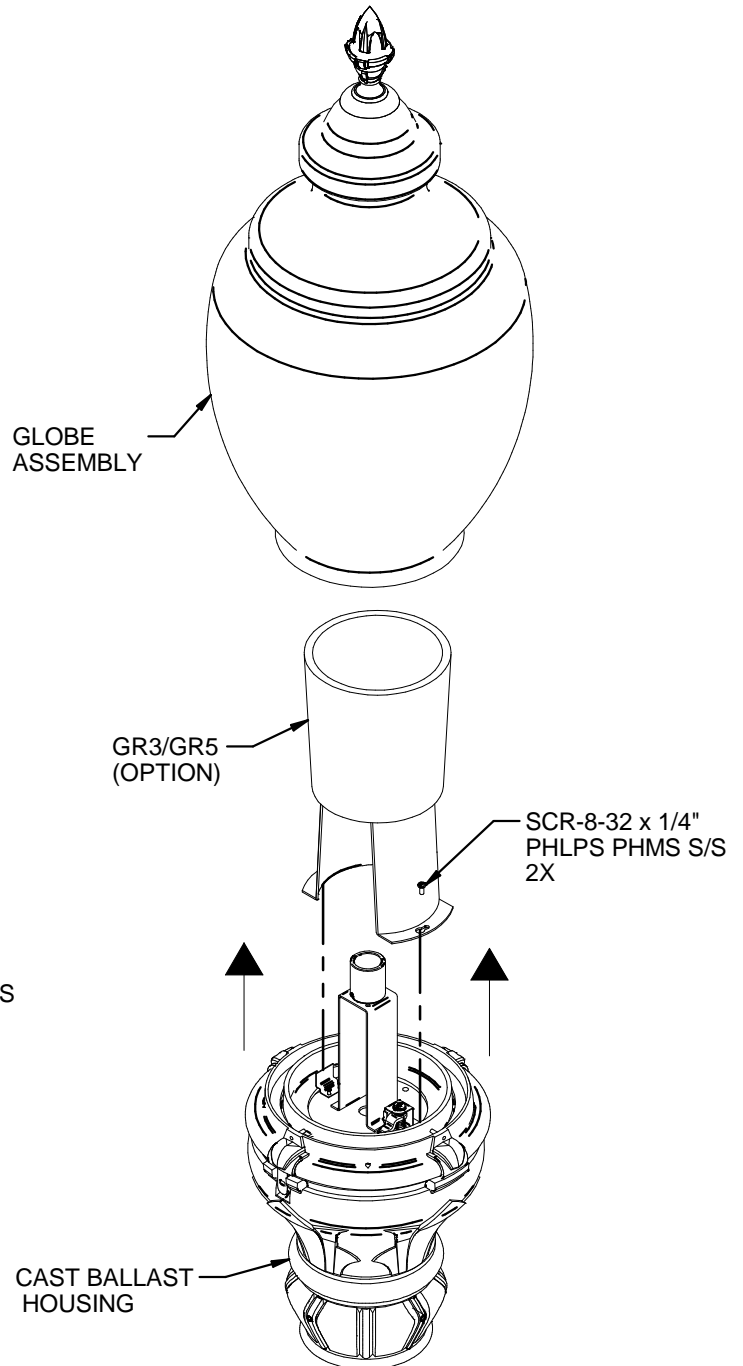
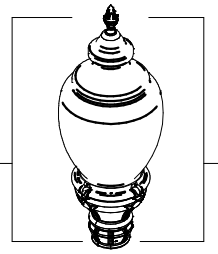


FIG. 1-2



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ - Federal Globe Small Scale (FGS) FOR SAL LENS FOR GR3/ GR5/ BLO

2. REMOVE EXISTING BALLAST ASSEMBLY AND SOCKET ASSEMBLY

1. TILT CAST LID TO THE SIDE BY PULLING LATCH BACKWARD. (FIG. 2-1)
2. DISENGAGE QUICK-DISCONNECT AND PULL APART. (FIG. 2-1)
3. REMOVE SOCKET ASSEMBLY BY TURNING TURN-LATCH COUNTER CLOCKWISE. (FIG. 2-2)
4. REMOVE BALLAST ASSEMBLY. (FIG. 2-3)

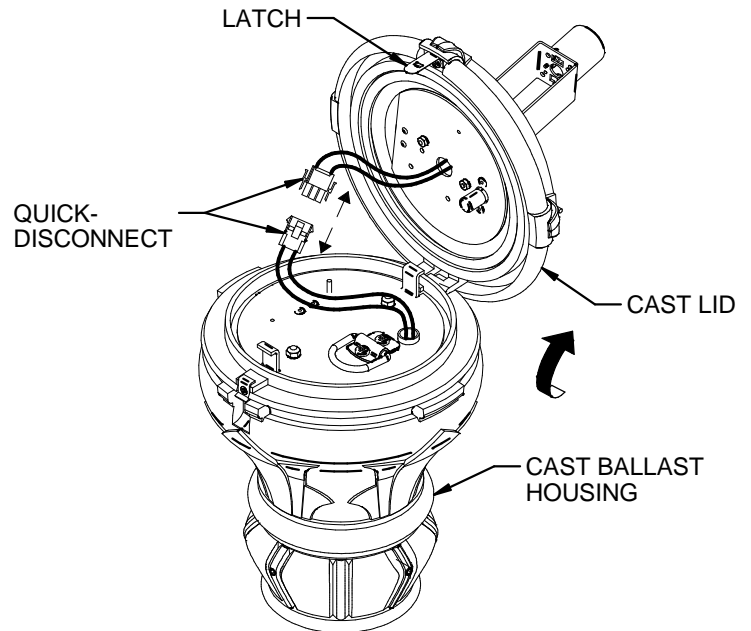


FIG. 2-1

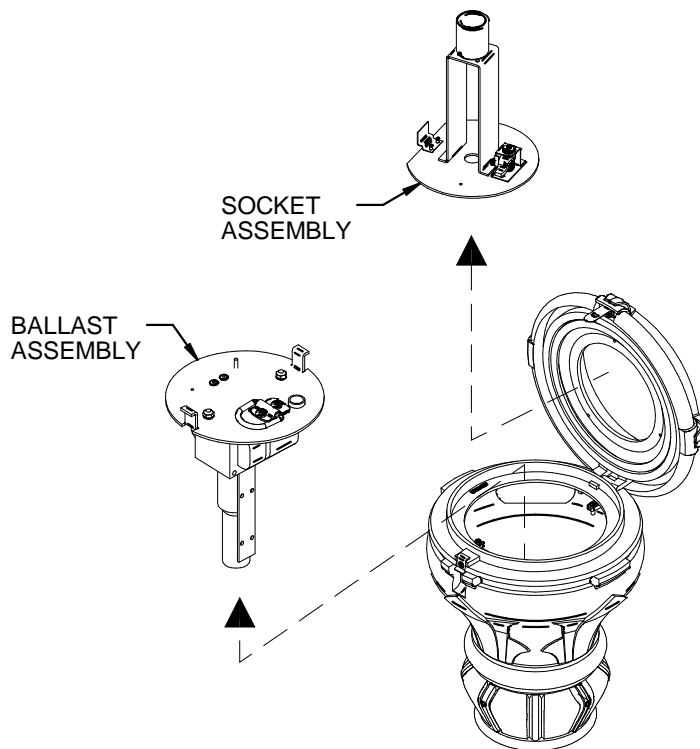


FIG. 2-3

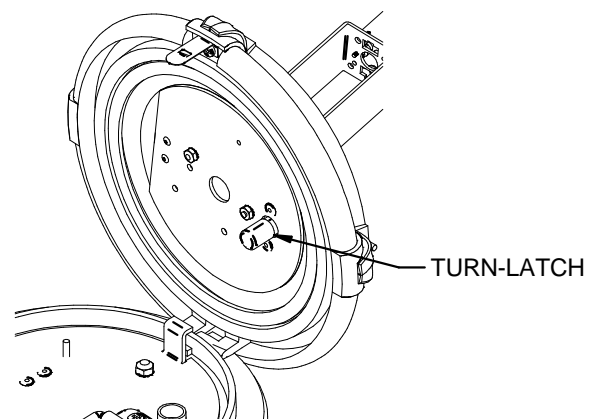
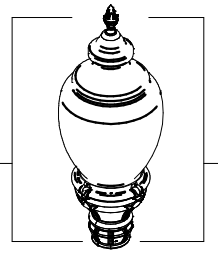


FIG. 2-2



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ - Federal Globe Small Scale (FGS) FOR SAL LENS FOR GR3/ GR5/ BLO

3. INSTALLING 32-LED Y6 MODULE AND LENS

1. INSTALL Y-MODULE TO CAST LID **WITH** **ARROW ON MOUNTING PLATE POINTING TO LATCH ON CAST LID** USING PROVIDED 8-32 X 3/8" SCREWS. (FIG. 3-1) **ARROW DENOTE STREET SIDE.**
2. PLACE GLOBE ASSEMBLY OVER CAST LID AND SECURE WITH FOUR SET SCREWS. (FIG. 3-2)

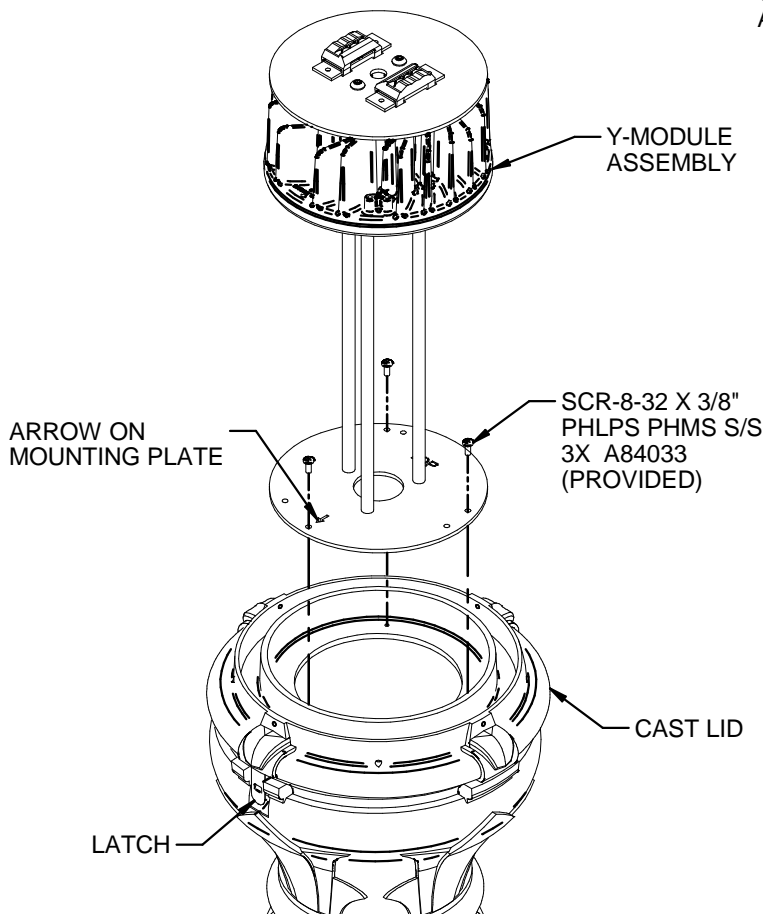


FIG. 3-1

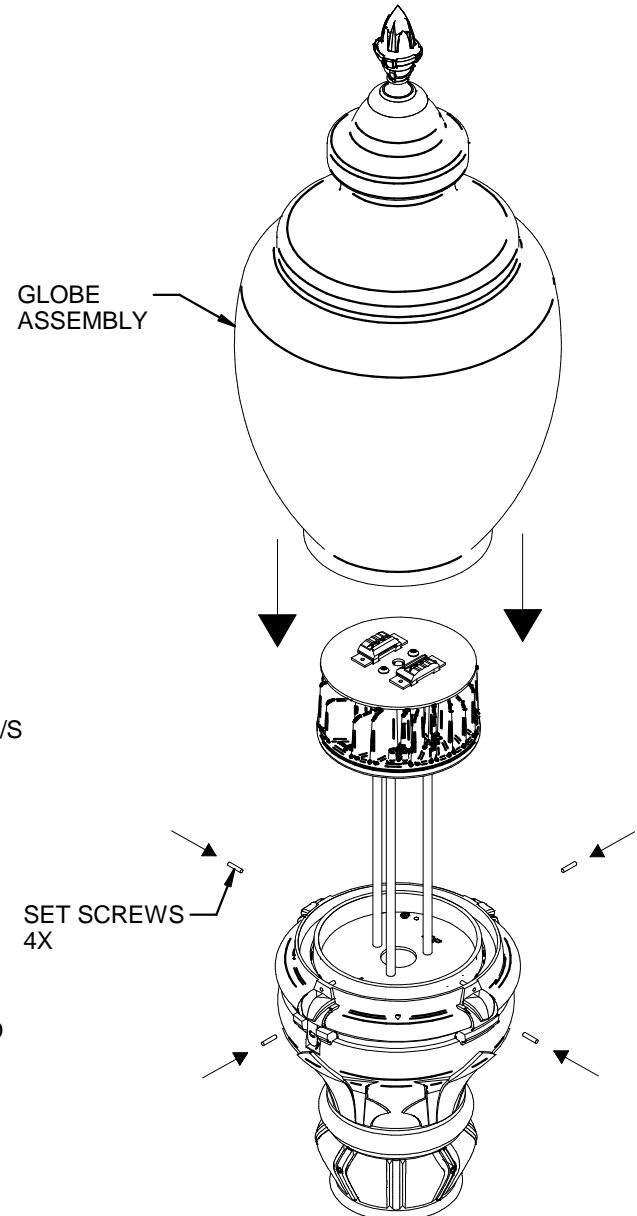
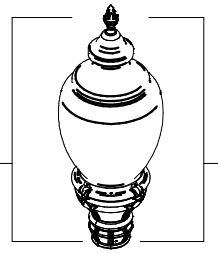


FIG. 3-2



Y-LED Upgrade Kit Installation Guide

Fixture: FGS™ - Federal Globe Small Scale (FGS) FOR SAL LENS FOR GR3/ GR5/ BLO

4. INSTALLING DRIVER ASSEMBLY

1. TILT GLOBE ASSEMBLY TO THE SIDE BY PULLING LATCH BACKWARD. (FIG. 4-1)
2. INSTALL DRIVER ASSY. (FIG. 4-1)
3. MAKE WIRE CONNECTIONS BY CONNECTING QUICK DISCONNECT FROM DRIVER ASSY TO SOCKET ASSY AND LIFESHIELD QUICK DISCONNECT. (FIG. 4-2)
4. CLOSE FIXTURE, ENSURE LATCH SNAPS BACK TO ITS ORIGINAL POSITION. (FIG. 4-3)
5. MAKE WIRE CONNECTIONS FROM INCOMING TO DRIVER ASSY: WHITE TO WHITE, BLACK TO BLACK AND GREEN TO GREEN. (FIG. 4-3)
6. INSTALLATION COMPLETE.

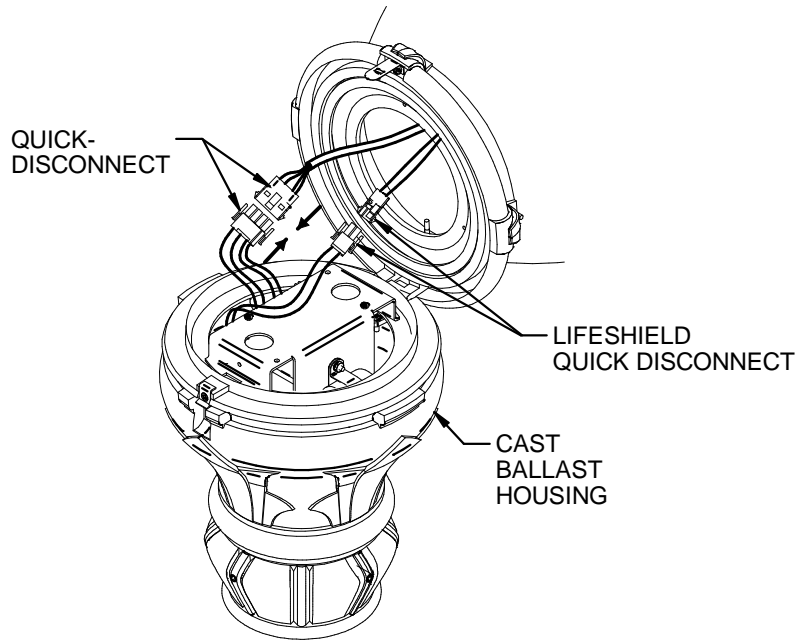


FIG. 4-2

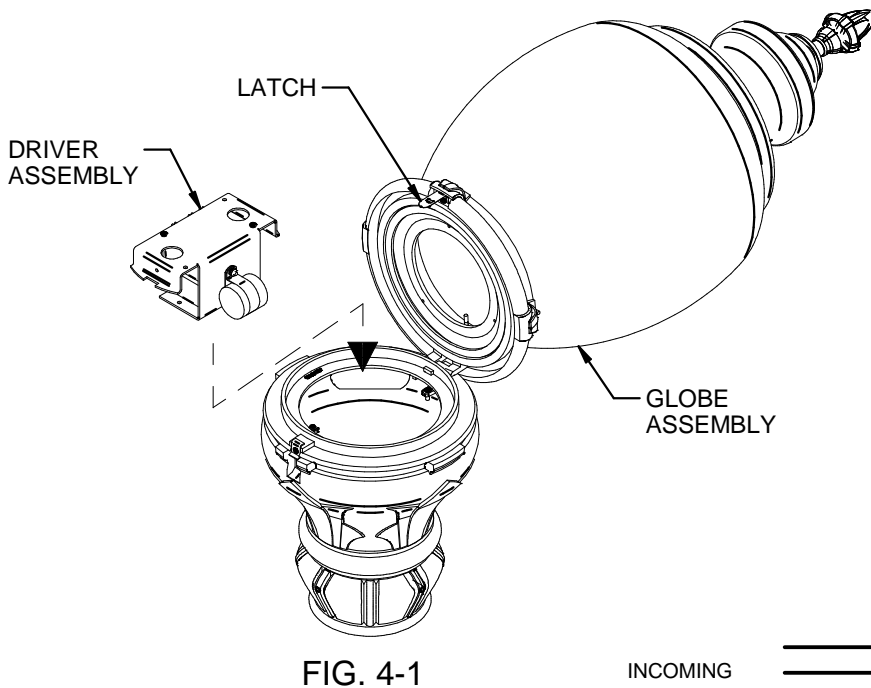


FIG. 4-1

INCOMING

BLACK
WHITE
GREEN

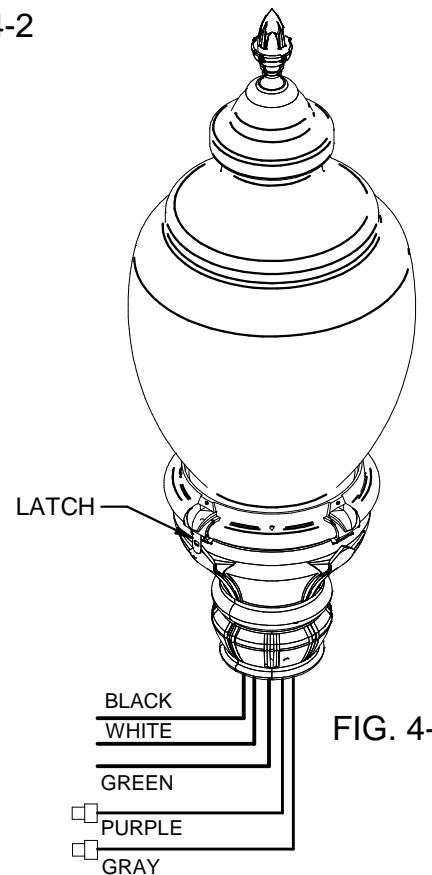
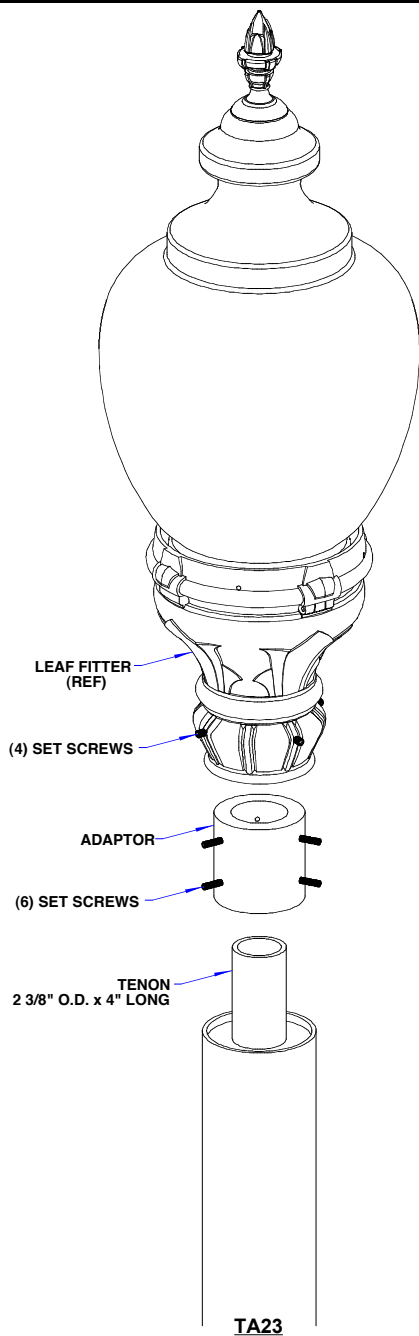


FIG. 4-3

INSTALLATION INSTRUCTIONS

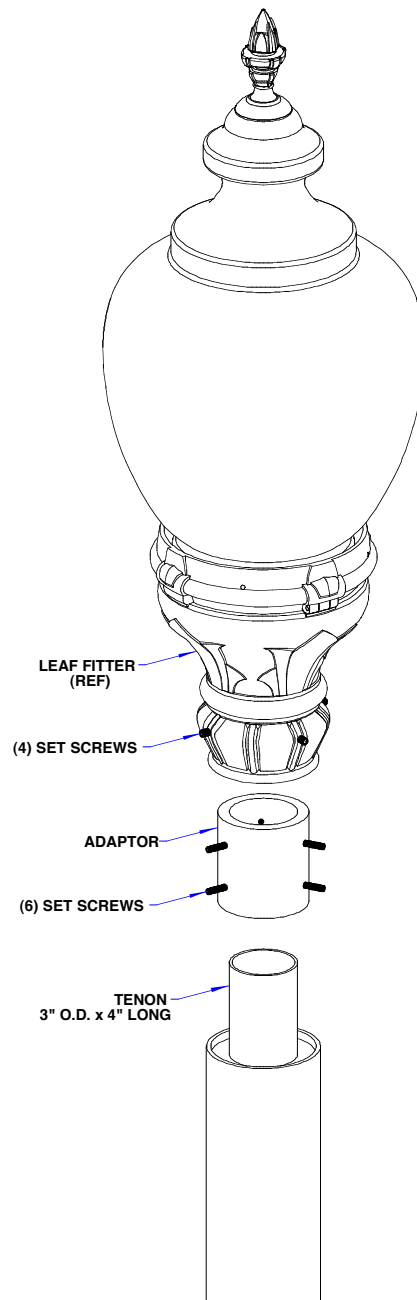
CATALOG NUMBER

FGS-TA23 / TA3 & AD5



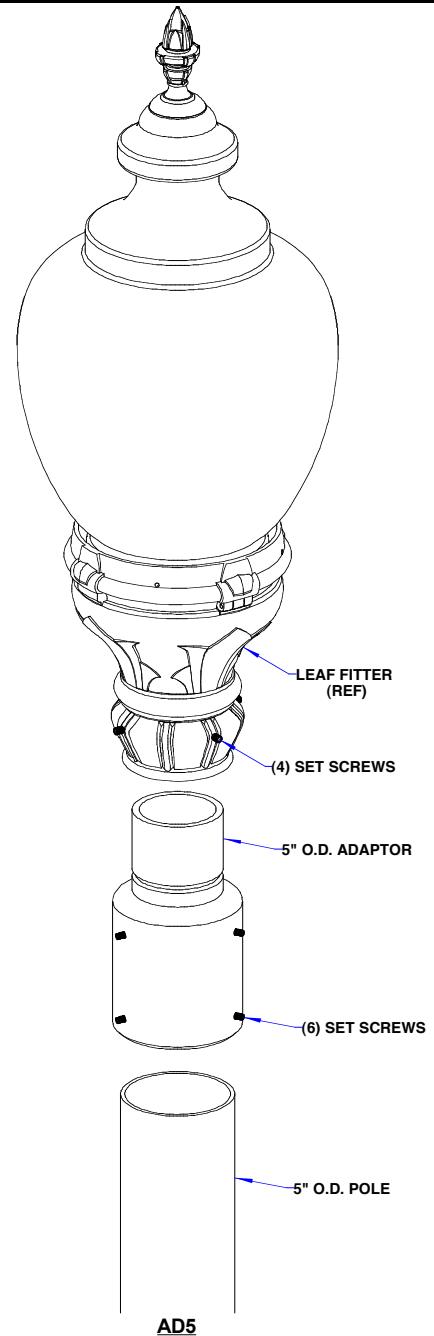
TA23

- 1) SLIP ADAPTOR OVER TENON AND SECURE WITH (6) SET SCREWS.
- 2) SECURE FIXTURE OVER ADAPTOR AND SECURE WITH (4) SET SCREWS.
- 3) INSTALLATION COMPLETE.



TA3

- 1) SLIP ADAPTOR OVER POLE AND SECURE WITH (6) SET SCREWS.
- 2) SECURE FIXTURE OVER ADAPTOR AND SECURE WITH (4) SET SCREWS.
- 3) INSTALLATION COMPLETE.



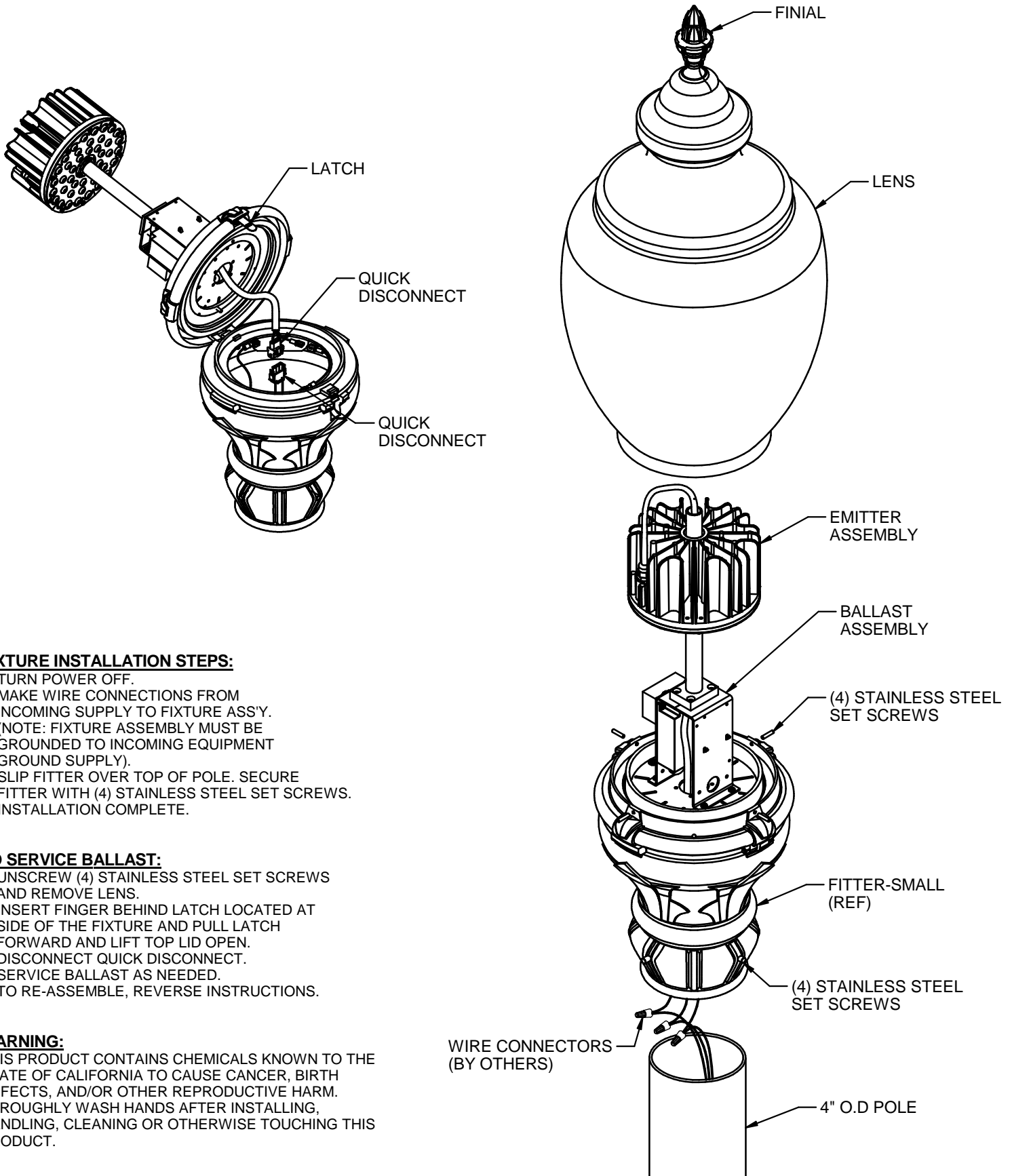
AD5

- 1) SLIP ADAPTOR OVER POLE AND SECURE WITH (6) SET SCREWS.
- 2) SECURE FIXTURE OVER ADAPTOR AND SECURE WITH (4) SET SCREWS.
- 3) INSTALLATION COMPLETE.

INSTALLATION INSTRUCTIONS

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FGS-LED



FIXTURE INSTALLATION STEPS:

- 1) TURN POWER OFF.
- 2) MAKE WIRE CONNECTIONS FROM INCOMING SUPPLY TO FIXTURE ASS'Y. (NOTE: FIXTURE ASSEMBLY MUST BE GROUNDED TO INCOMING EQUIPMENT GROUND SUPPLY).
- 3) SLIP FITTER OVER TOP OF POLE. SECURE FITTER WITH (4) STAINLESS STEEL SET SCREWS.
- 4) INSTALLATION COMPLETE.

TO SERVICE BALLAST:

- 1) UNSCREW (4) STAINLESS STEEL SET SCREWS AND REMOVE LENS.
- 2) INSERT FINGER BEHIND LATCH LOCATED AT SIDE OF THE FIXTURE AND PULL LATCH FORWARD AND LIFT TOP LID OPEN.
- 3) DISCONNECT QUICK DISCONNECT.
- 4) SERVICE BALLAST AS NEEDED.
- 5) TO RE-ASSEMBLE, REVERSE INSTRUCTIONS.

WARNING:

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, AND/OR OTHER REPRODUCTIVE HARM. THOROUGHLY WASH HANDS AFTER INSTALLING, HANDLING, CLEANING OR OTHERWISE TOUCHING THIS PRODUCT.

INSTALLATION INSTRUCTIONS

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FGS

