

Top Assembly

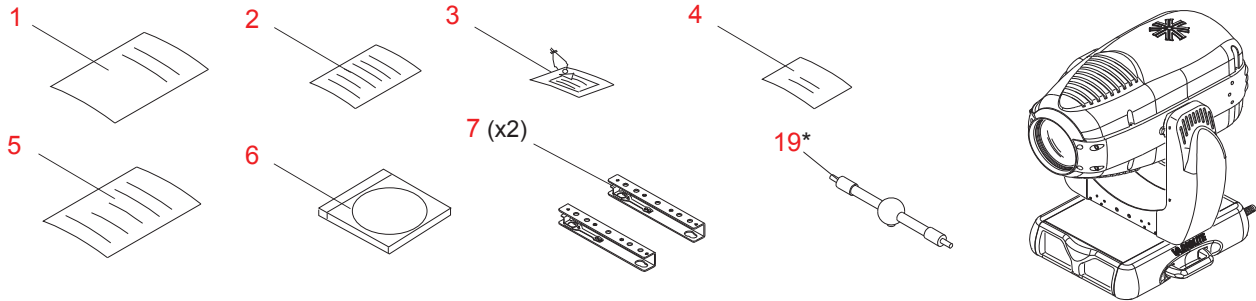
Included Items Kit, Spot

28.9678.0020 Rev E

Refer to [Figure 3-5](#).

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 02.8001.0001 | 1 | EA | PRODUCT SUPPORT SHEET, VARI-LITE CUSTOMER SERVICE |
| 2 | 02.8052.0001 | 1 | EA | CARD, LIMITED WARRANTY |
| 3 | 02.8406.0001 | 1 | EA | TAG, LAMP NOTICE |
| 4 | 02.8700.0001 | 1 | EA | CARD, PRODUCT REGISTRATION |
| 5 | 02.9678.0002 | 1 | EA | UNPACK/QUICK START SHEET, VL3000 |
| - | 04.4037.0001 | 5 | EA | LABEL, 2.5 X .5 BARCODE (not shown) |
| - | 07.9678.0036 | 1 | EA | CARDBOARD SHIPPING BOX, VL3000 (not shown) |
| 6 | 08.3500.0001 | 1 | EA | CD-ROM, VL3500 PRODUCT DOCUMENTATION, USER |
| 7 | 22.9661.1636 | 2 | EA | FAB ASSY, BRACKET TRUSS HOOK |
| 8 | 41.6030.5011 | 1 | EA | GOBO ASSY, NIGHT SKY (POS 1-3) |
| 9 | 41.6030.5503 | 1 | EA | GOBO ASSY, PALM LEAVES (POS 2-2) |
| 10 | 41.6030.5523 | 1 | EA | GOBO ASSY, TRIBAL BREAKUP (POS 1-4) |
| 11 | 41.6030.6011 | 1 | EA | GOBO ASSY, CIRCLE OF OVALS (POS 3-5) |
| 12 | 41.6030.7002 | 1 | EA | GOBO ASSY, PEBBLES (POS 2-27) |
| 13 | 41.6030.7014 | 1 | EA | GOBO ASSY, TRIANGLE BREAKUP (POS 2-4) |
| 14 | 41.6030.7018 | 1 | EA | GOBO ASSY, SHOCK BREAKUP (POS 2-3) |
| 15 | 41.6030.7029 | 1 | EA | GOBO ASSY, ALPHA RAYS (POS 1-2) |
| 16 | 41.6030.8503 | 1 | EA | GAG ASSY, GLACIER (POS 1-6) |
| 17 | 41.6030.8509 | 1 | EA | GAG ASSY, ICE BLOCKS (POS 2-5) |
| 18 | 41.6030.8801 | 1 | EA | GOBO ASSY, MULTI-COLOR CIRCLES (POS 1-5) |
| 19 | 71.2557.1200 | 1 | EA | LAMP, 1200 WATT SHORT ARC, DOUBLE-ENDED |

Included Items Kit, Spot (continued)








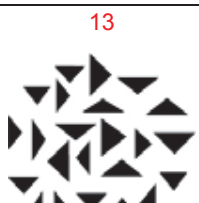
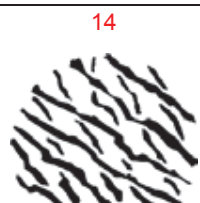
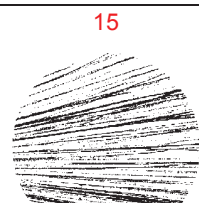
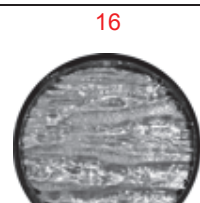
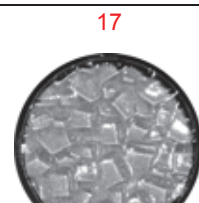
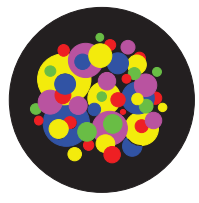
| | | | | |
|--|--|--|---|--|
| 8  <i>Night Sky</i> | 9  <i>Palm Leaves</i> | 10  <i>Tribal Break-Up</i> | 11  <i>Circle of Ovals</i> | 12  <i>Pebbles</i> |
| 13  <i>Triangle Break-Up</i> | 14  <i>Shock Break-Up</i> | 15  <i>Alpha Rays</i> | 16  <i>Glacier Gag</i> | 17  <i>Ice Blocks Gag</i> |
| 18  <i>Multi-Colored Gobo</i> | | | | |

Figure 3-5: Included Items Kit, Spot

Note: * = Do not handle lamp with bare hands. When handling, it is best to wear clean cotton gloves in order to keep the lamp's glass as dirt and grease free as possible.

VL3500 Spot Series Luminaire

20.9678.0019 Rev F (VL3500 Only)

20.9678.0020 Rev G (VL3500Q Only)

Refer to [Figure 3-6](#)

| No. | Item | Qty. | UM. | Description |
|-----|-----------------|------|-----|---|
| - | 02.8405.0001 | 1 | EA | AC DANGER TAG, VL3000 (not shown) |
| - | 04.9661.0033.01 | 1 | EA | LABEL, WARNING - 2000 SERIES (not shown) |
| - | 04.9661.0039 | 1 | EA | LABEL, LINE CORD WARNING (not shown) |
| - | 04.9678.0063 | 1 | EA | LABEL, AC INPUT RATING VL3500 (VL3500 ONLY - not shown) |
| - | 04.9678.0064 | 1 | EA | LABEL, AC INPUT RATING VL3500Q (VL3500Q ONLY - not shown) |
| - | 10.9678.0609 | 1 | EA | FRONT FILTER, FOAM, ZOOM (not shown) |
| 1 | 10.9686.0617 | 1 | EA | YOKE CROSSMEMBER, HEAT SHIELD |
| 2 | 10.9678.0658 | 10 | EA | PLATE, COUNTERWEIGHT |
| 3 | 10.9678.0670 | 1 | EA | INTERCONNECT PCB MOUNT, CYM |
| 4 | 10.9686.0732 | 2 | EA | COVER, YOKE THERMOFORM |
| 5 | 21.9678.0010.02 | 1 | EA | ASSY, GENERIC LUMINAIRE (VL3500 ONLY) |
| | 21.9678.0011.02 | 1 | EA | ASSY, GENERIC LUMINAIRE (VL3500Q ONLY) |
| 6 | 21.9678.8611 | 2 | EA | ASSY, HEAD COVER |
| 7 | 21.9678.8640.01 | 1 | EA | ASSY, HOT BOX, SPOT (VL3500 ONLY) |
| | 21.9678.8698.01 | 1 | EA | ASSY, HOT BOX, SPOT (VL3500Q ONLY) |
| 8 | 21.9678.0660.03 | 1 | EA | ASSY, DUAL FAN TRAY DUCT (VL3500 ONLY) |
| | 21.9678.0659.03 | 1 | EA | ASSY, DUAL FAN TRAY DUCT (VL3500Q ONLY) |
| 9 | 21.9678.1200 | 1 | EA | ASSY, GOBO/SHUTTER MODULE |
| 10 | 21.9678.1246 | 1 | EA | ASSY, CABLE INTERCONNECT, SHUTTER |
| 11 | 21.9678.1263 | 1 | EA | ASSY, TRANSFER FAN (VL3500 ONLY) |
| | 21.9678.1263 | 1 | EA | ASSY, TRANSFER FAN (VL3500Q ONLY) |
| 12 | 22.9678.0103 | 1 | EA | ASSY, SPOT OPTIC |
| 13 | 22.9678.0149 | 4 | EA | ASSY, ROD CLAMP |
| 14 | 22.9678.0402 | 1 | EA | ASSY, COLOR/DIMMER/STROBE (VL3500 ONLY) |
| | 22.9678.0462 | 1 | EA | ASSY, COLOR/DIMMER/STROBE (VL3500Q ONLY) |
| 15 | 22.9678.0693 | 2 | EA | ASSY, GOBO CLAMP |
| 16 | 22.9678.0694 | 2 | EA | ASSY, COLOR CLAMP |
| 17 | 22.9678.1126 | 1 | EA | ASSY, LEAD SCREW EDGE |
| 18 | 24.9678.4730 | 1 | EA | PCB ASSY, VL3500 CONTROLLER |
| - | 25.9678.0675 | 1 | EA | CABLE ASSY, RELAY TO GOBO FAN (not shown) |

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| - | 25.9678.0677 | 1 | EA | CABLE ASSY, FRONT HEAD FANS (not shown) |
| - | 25.9678.0689 | 1 | EA | CABLE ASSY, YOKE TO HEAD GND (not shown) |
| - | 25.9678.1715 | 1 | EA | CABLE ASSY, HEAD CONTROL (not shown) |
| - | 28.9678.0020 | 1 | EA | INCLUDED ITEMS KIT, VL3500 SHUTTER (not shown) |
| 19 | 53.2001.0003 | 4 | EA | NUT, 10-32 NYLON INSERT |
| 20 | 53.2002.0003 | 4 | EA | NUT, 6-32 HEX ZINC NYLON IN |
| 21 | 53.2202.0008 | 1 | EA | NUT, 8-32 HEX SS, NYLON INSERT |
| 22 | 53.6543.0001 | 8 | EA | SCREW, 6-32 X 3/8" PPB |
| 23 | 53.6558.0007 | 4 | EA | SCREW, 6-32 X 1/4" LG PPZ SEMS EXT ZINC PLT |
| 24 | 53.6558.0009 | 8 | EA | SCREW, 6-32 X 3/8" LG PPZ SEMS |
| 25 | 53.6558.0016 | 2 | EA | SCREW, 6-32 X 3/4" LG PPB ZINC SEMS EXT |
| 26 | 53.6579.0001 | 4 | EA | SCREW, 10-32 X 1/2" SCB |
| 27 | 53.6613.0001 | 2 | EA | SCREW, 6-32 X 1/2" PPZ |
| 28 | 53.6614.0003 | 4 | EA | SCREW, 6-32 X 5/8" PFZ |
| 29 | 53.6616.0001 | 4 | EA | SCREW, 6-32 X 3/4" PPZ |
| 30 | 55.2141.0001 | 2 | EA | STANDOFF, 5/16" HEX, 6-32 X 7/16" LG, MF |
| 31 | 55.2150.0002 | 2 | EA | STANDOFF, 1/4" HEX 6-32 1.188" LG MF STL |
| 32 | 55.2284.0001 | 2 | EA | CARD GUIDE, 3" LONG SNAP IN |
| 33 | 55.6506.0024 | 2 | EA | SPACER, 3/16" RND .1875" LG .141 |
| 34 | 55.6528.0001 | 2 | EA | WASHER, #6 FLAT ZINC |
| 35 | 55.6573.0001 | 2 | EA | HARDENED SHAFT, 10 MM DIA X 200 |
| 36 | 55.6677.0033 | 4 | EA | WASHER, .201" OD .125" ID .032" THK FLAT SS |
| | 55.6699.0003 | .830 | FT | SLEEVING, 1/2" NOM.DIA. POLY (not shown) |
| - | 55.6699.0004 | 1.16 | FT | SLEEVING, 3/4" NOM.DIA. POLY (not shown) |

VL3500 Spot Series Luminaire (continued)

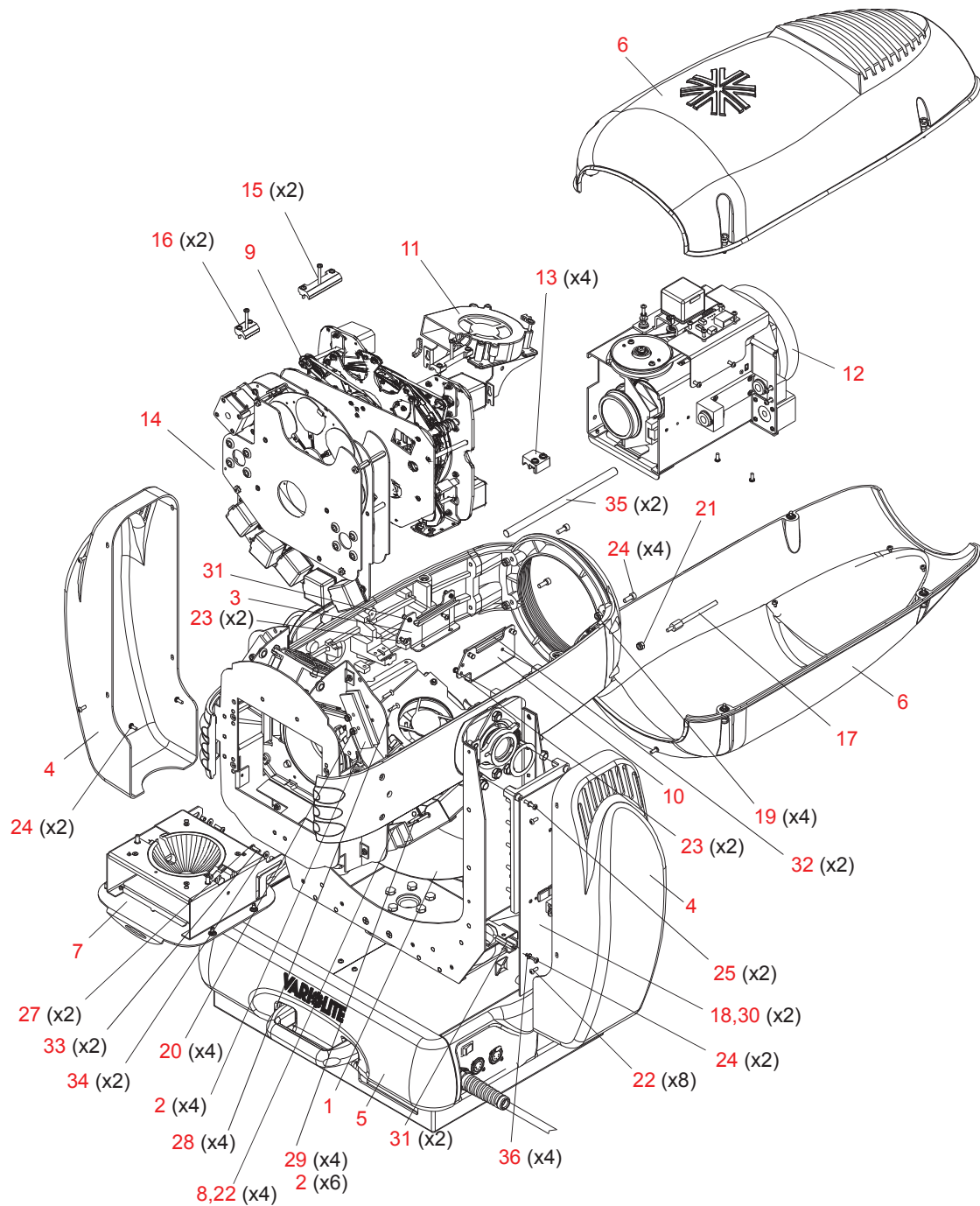


Figure 3-6: VL3500 Series Spot Luminaire

Generic Luminaire Assembly

21.9678.0010.02 Rev H (VL3500 Only)

Refer to [Figure 3-7](#)

| No. | Item | Qty. | UM. | Description |
|-----|---------------------------------|------|-----|--|
| 1 | 21.9678.0600 | 1 | EA | ASSY, HEAD STRUCTURE |
| 2 | 21.9678.0700 | 1 | EA | ASSY, YOKE |
| 3 | 21.9678.0707 | 1 | EA | ASSY, TILT PULLEY |
| 3a | - 10.9678.0750 | 1 | EA | TIMING PULLEY, 150 TOOTH |
| 3b | - 10.9678.0754 | 1 | EA | FLAG, CENTER OF TRAVEL, TILT |
| 3c | - 53.6530.0006 | 3 | EA | RIVET, 1/8"OD POP .188-.250GL |
| 4 | 21.9678.0767 | 1 | EA | ASSY, STABILIZER |
| 4a | - 10.9678.0757 | 1 | EA | STABILIZER, 1.377DIA |
| 4b | - 10.9678.0762 | 1 | EA | BRACKET, STABLIZER |
| 4c | - 53.6610.0003 | 1 | EA | SCREW, 6-32 X 7/16" PPZ |
| 4d | - 55.6568.0075 | 1 | EA | SPRING, EXTSN .375"OD 1.00"LG .041" WIRE DIA |
| 5 | 21.9678.0800.02 | 1 | EA | ASSY, UPPER ENCLOSURE |
| 6 | 53.2019.0004 | 4 | EA | NUT, 3/8-16 X 7/32"THK HEX JAM GRD5 ZINC PLT |
| 7 | 53.6505.0020 | 5 | EA | BOLT, 1/4-28X 3/4"HX HD GRD 8 ZINC PLT FULL THRD |
| 8 | 53.6505.0026 | 4 | EA | BOLT, 3/8-16 X .500"LG H X HD GRADE 5 BLK 9/16"HEX HEAD X .23 TALL |
| 9 | 53.6539.0001 | 4 | EA | WASHER, 3/8" SPLIT LOCK |
| 10 | 53.5564.0250 | 1 | EA | SCREW, 6-32 X 1/4" PFB UNDERCUT |
| 11 | 53.6624.0001 | 4 | EA | SCREW, 10-32 X 1/2"LG PFB |
| 12 | 53.6513.0044 | 3 | EA | SCREW, M5 X 10MM STL CUP PT |
| 13 | 54.1206.0014 | 2 | EA | RING, RETAINING 1.375"SHAFT 1.291"GRV DIA .056"GRVWD EXTERNAL |
| 14 | 54.1255.0001 | 2 | EA | BEARING ASSY, BLACK FLUSH MOUNT HOUSING |
| 15 | 54.2055.0001 | 1 | EA | BELT, TIMING S2M 210GROOVE 9MMWIDE URETHANE/KEVLAR |
| 16 | 55.6549.0001 | 5 | EA | WASHER, 1/4" SPLIT LOCK |
| 17 | 55.6799.0001 | 2 | EA | SHIM, 1-3/8"ID, 1-7/8"OD, .010" THK, SS |
| 18 | 55.6799.0002 | 2 | EA | SHIM, 1-3/8"ID, 1-7/8"OD, .005" THK, SS |

Generic Luminaire Assembly (continued)

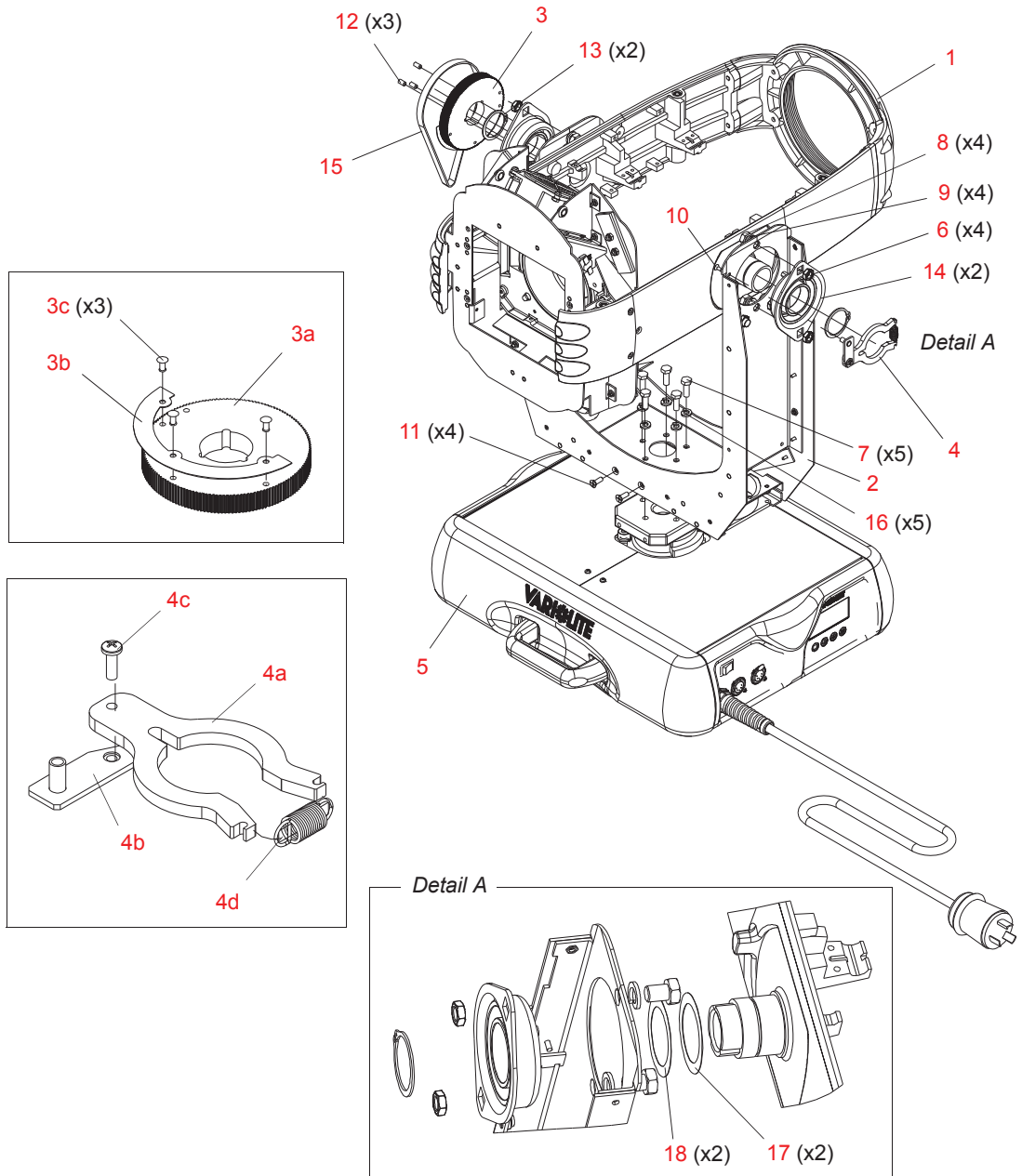


Figure 3-7: Generic Luminaire Assembly - VL3500 Only

Generic Luminaire (Quiet) Assembly

21.9678.0011.02 Rev C (VL3500Q Only)

Refer to [Figure 3-8](#)

| No. | Item | Qty. | UM. | Description |
|-----|---------------------------------|------|-----|--|
| 1 | 21.9678.0601 | 1 | EA | ASSEMBLY, HEAD STRUCTURE, QUIET |
| 2 | 21.9678.0701 | 1 | EA | ASSEMBLY, YOKE, QUIET |
| 3 | 21.9678.0707 | 1 | EA | ASSEMBLY, TILT PULLEY |
| 3a | - 10.9678.0750 | 1 | EA | TIMING PULLEY, 150 TOOTH |
| 3b | - 10.9678.0754 | 1 | EA | FLAG, CENTER OF TRAVEL, TILT |
| 3c | - 53.6530.0006 | 3 | EA | RIVET, 1/8"OD POP .188-.250GL |
| 4 | 21.9678.0767 | 1 | EA | ASSEMBLY, STABILIZER |
| 4a | - 10.9678.0757 | 1 | EA | STABILIZER, 1.377 DIA |
| 4b | - 10.9678.0762 | 1 | EA | BRACKET, STABLIZER |
| 4c | - 53.6610.0003 | 1 | EA | SCREW, 6-32 X 7/16" PPZ |
| 4d | - 55.6568.0075 | 1 | EA | SPRING, EXTSN .375" OD 1.00" LG .041" WIRE DIA |
| 5 | 21.9678.0801.02 | 1 | EA | ASSEMBLY, UPPER ENCLOSURE, QUIET |
| 6 | 53.2019.0004 | 4 | EA | NUT, 3/8-16 X 7/32"THK HEX JAM GRD5 ZINC PLT |
| 7 | 53.6505.0020 | 5 | EA | BOLT, 1/4-28X 3/4"HX HD GRD 8 ZINC PLT FULL THRD |
| 8 | 53.6505.0026 | 4 | EA | BOLT, 3/8-16 X .500"LG H X HD GRADE 5 BLK 9/16"HEX HEAD X .23 TALL |
| 9 | 53.6539.0001 | 4 | EA | WASHER, 3/8" SPLIT LOCK |
| 10 | 53.5564.0250 | 1 | EA | SCREW, 6-32 X 1/4" PFB UNDERCUT |
| 11 | 53.6624.0001 | 4 | EA | SCREW, 10-32 X 1/2"LG PFB |
| 12 | 53.6513.0044 | 3 | EA | SCREW, M5 X 10MM STL CUP PT |
| 13 | 54.1206.0014 | 2 | EA | RING, RETAINING 1.375"SHAFT 1.291"GRV DIA .056"GRVWD EXTERNAL |
| 14 | 54.1255.0001 | 2 | EA | BEARING ASSY, BLACK FLUSH MOUNT HOUSING |
| 15 | 54.2055.0001 | 1 | EA | BELT, TIMING S2M 210GROOVE 9MMWIDE URETHANE/KEVLAR |
| 16 | 55.6549.0001 | 5 | EA | WASHER, 1/4" SPLIT LOCK |
| 17 | 55.6799.0001 | 2 | EA | SHIM, 1-3/8"ID, 1-7/8"OD, .010" THK, SS |
| 18 | 55.6799.0002 | 2 | EA | SHIM, 1-3/8"ID, 1-7/8"OD, .005" THK, SS |

Generic Luminaire (Quiet) Assembly (continued)

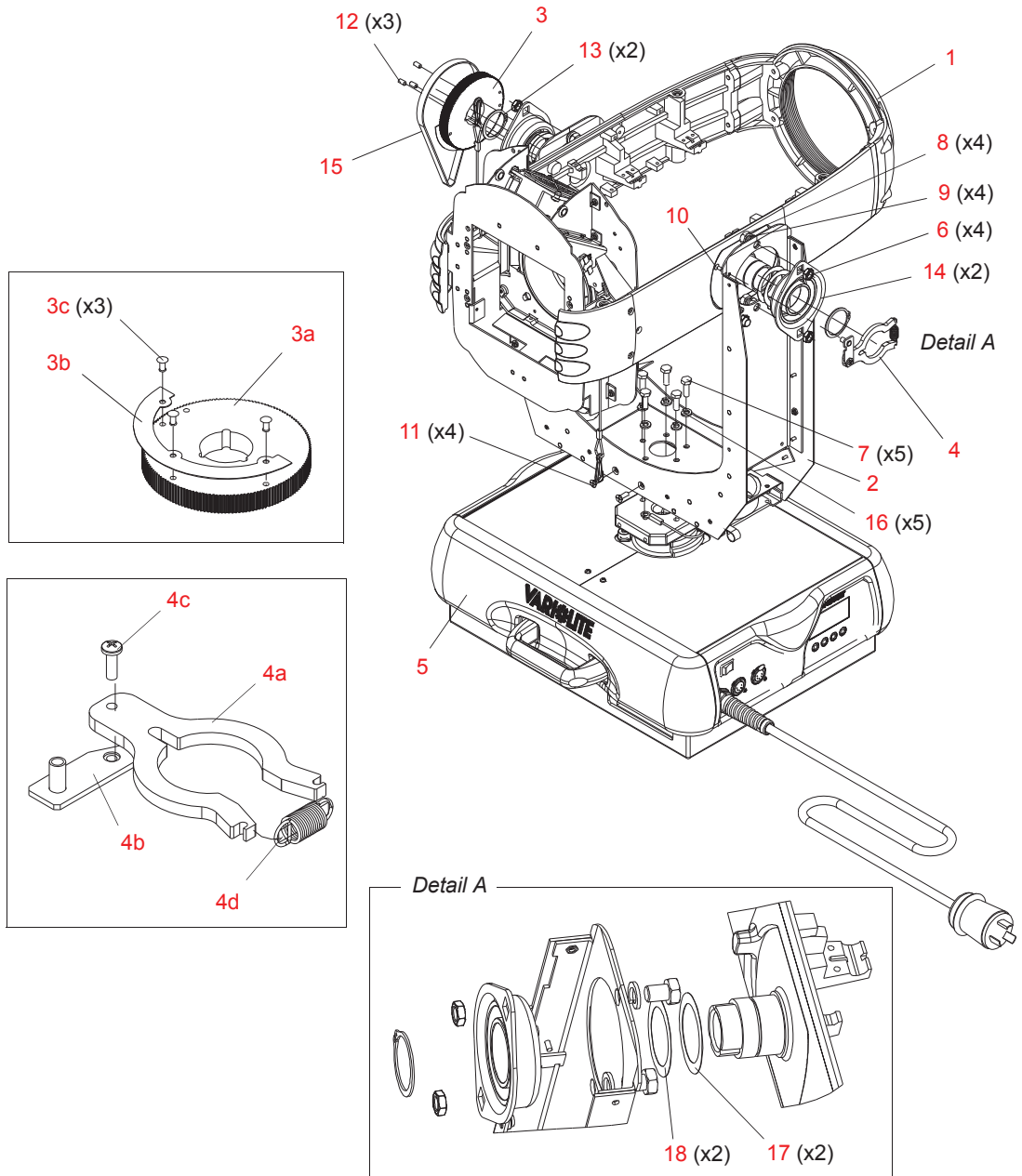


Figure 3-8: Generic Luminaire Assembly - VL3500Q Only

Head Assembly

Head Structure (Standard) Assembly

21.9678.0600 Rev C (VL3500 Only)

Refer to [Figure 3-1](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---------------------------------------|
| 1 | 10.9678.8620 | 1 | EA | FRONT CASTING |
| 2 | 12.9678.8623 | 1 | EA | RIGHT SIDE RAIL, MACHINED |
| 3 | 12.9678.8625 | 1 | EA | LEFT SIDE RAIL, MACHINED |
| 4 | 21.9678.0615 | 1 | EA | ASSY, BACKEND |
| 5 | 53.6515.0001 | 6 | EA | SCREW, 10-32 X 3/4" SCB CAP |
| 6 | 53.6515.1000 | 1 | EA | SCREW, 10-32 X 1" SOCKET CAP BLACK |
| 7 | 53.6615.1125 | 3 | EA | SCREW, 10-32 X 1.25" SOCKET CAP BLACK |

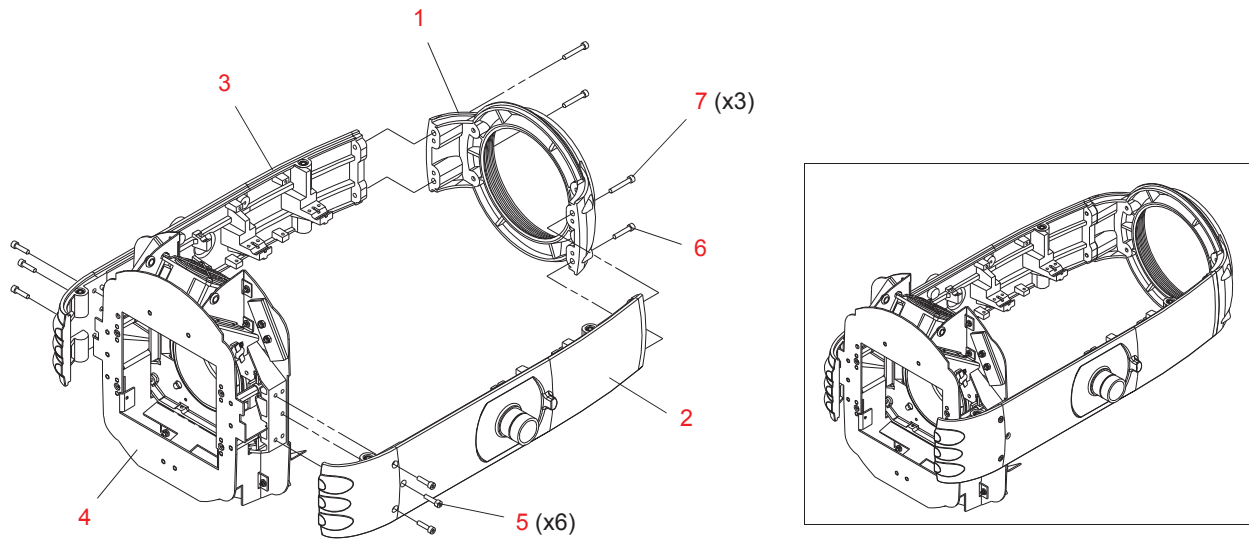


Figure 3-1: Head Structure Assembly - VL3500 Only

Head Structure (Quiet) Assembly

21.9678.0601 Rev 0 (VL3500Q Only)

Refer to [Figure 3-1](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|---------------------------------------|
| 1 | 10.9678.8620 | 1 | EA | FRONT CASTING |
| 2 | 12.9678.8623 | 1 | EA | RIGHT SIDE RAIL, MACHINED |
| 3 | 12.9678.8625 | 1 | EA | LEFT SIDE RAIL, MACHINED |
| 4 | 21.9678.0616 | 1 | EA | ASSEMBLY, BACK CAP |
| 5 | 53.6515.0001 | 6 | EA | SCREW, 10-32 X 3/4" SCB CAP |
| 6 | 53.6515.1000 | 1 | EA | SCREW, 10-32 X 1" SOCKET CAP BLACK |
| 7 | 53.6615.1125 | 3 | EA | SCREW, 10-32 X 1.25" SOCKET CAP BLACK |

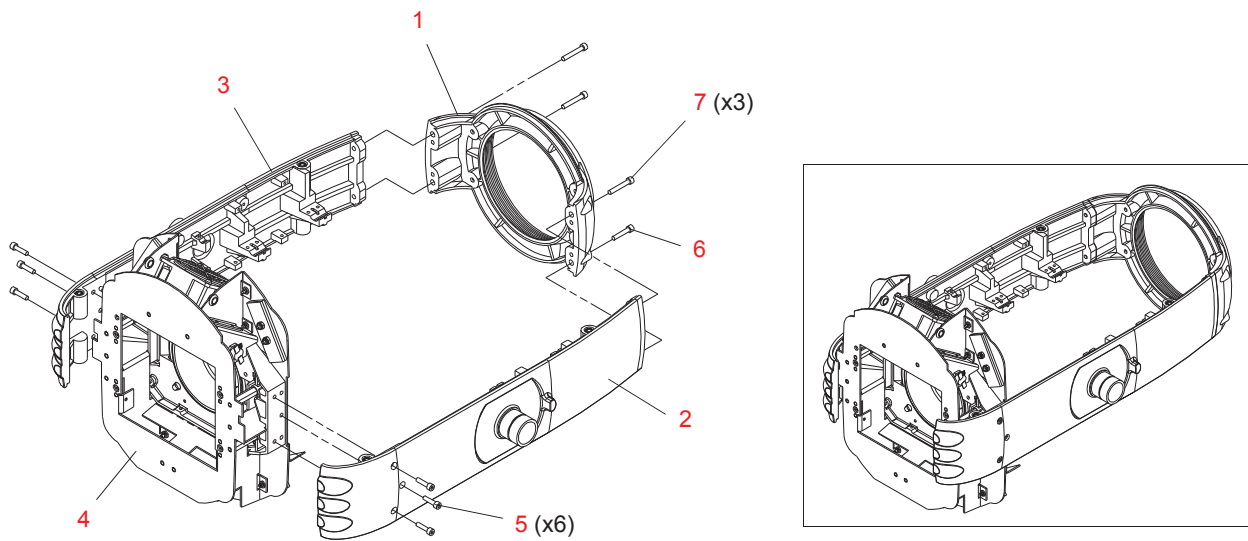


Figure 3-2: Head Structure Assembly - VL3500Q Only

Head Cover Assembly

21.9678.8611 Rev -

Refer to Figure 3-3

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.0612 | 1 | EA | HEAD COVER FOAM BAFFLE |
| 2 | 10.9678.0649 | 4 | EA | EJECTOR SPRING, BLACK OXIDE |
| 3 | 10.9678.0674 | 1 | EA | BRACKET, COVER TETHER |
| 4 | 10.9678.0696 | 1 | EA | FOAM FRAME, HEAD COVER |
| 5 | 12.9678.8610 | 1 | EA | HEAD COVER, PAINTED |
| 6 | 53.6558.0003 | 1 | EA | SCREW, 6-32 X 3/8"LG PPZ PLASTIC THD ROLL |
| 7 | 53.5655.0250 | 4 | EA | SCREW, 6-32 X 1/4"LG PPZ PLASTIC THD ROLL |
| 8 | 55.2233.0003 | 4 | EA | RETAINER, PUSH-ON TYPE |
| 9 | 55.2233.0775 | 4 | EA | STUD, 1/4 TURN OPR.775L STEEL |
| 10 | 55.6528.0001 | 4 | EA | WASHER, #6 FLAT ZINC |

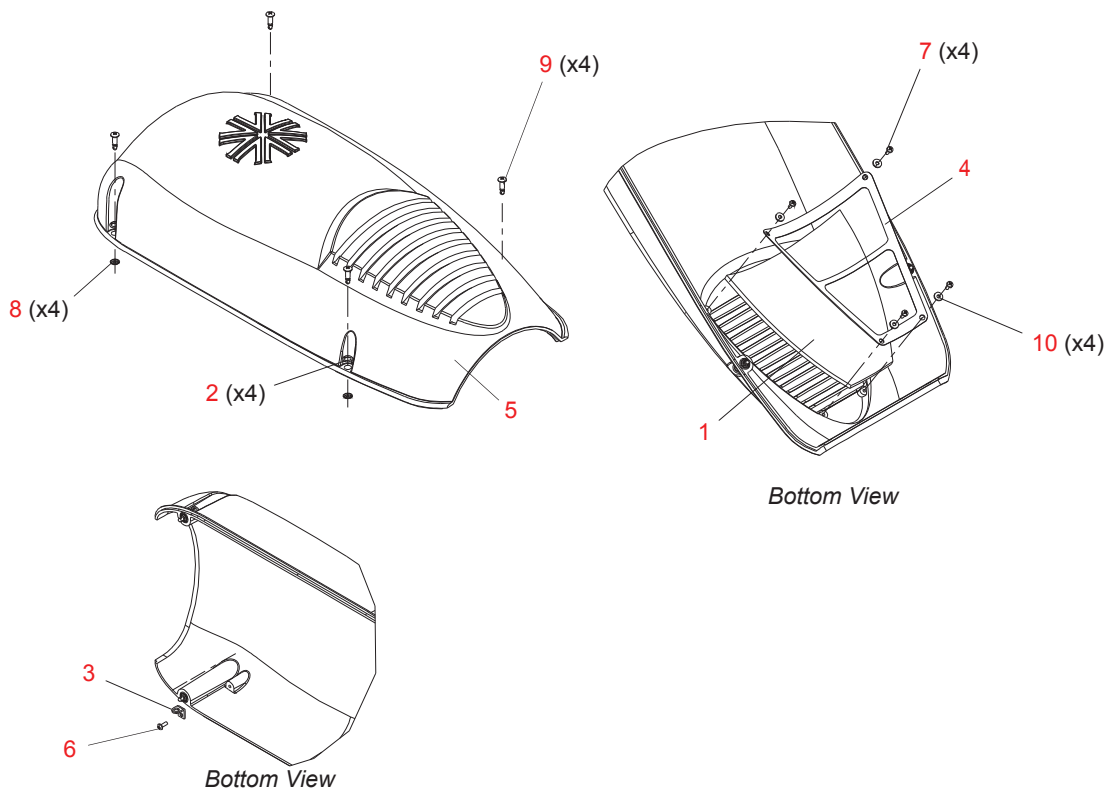


Figure 3-3: Head Cover Assembly

Backcap Assembly

21.9678.0615 Rev S (VL3500)

21.9678.0616 Rev G (VL3500 Q)

Refer to [Figure 3-4](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 10.9678.0631 | 1 | EA | SEPARATION BULKHEAD |
| 2 | 10.9678.8635 | 1 | EA | EXHAUST BULKHEAD |
| 3 | 10.9678.0637 | 2 | EA | CLIP, RETRO-REFLECTOR |
| 4 | 10.9678.0638 | 1 | EA | AIR DIVERTER, STROBE MOTOR |
| 5 | 10.9678.0653 | 1 | EA | LIGHT BAFFLE, EXHAUST |
| 6 | 12.9678.7152 | 1 | EA | REFLECTOR, RETRO SPHERICAL COATED |
| 7 | 12.9678.0627 | 1 | EA | AFT BULKHEAD, MACHINED |
| 8 | 21.9678.0619 | 1 | EA | FAN ASSY, 80MM |
| 9 | 21.9678.0673 | 2 | EA | TETHER ASSY, COVER |
| 10 | 22.9678.3655 | 1 | EA | DUCT ASSY, 80MM FAN |
| 11 | 22.9678.0639 | 1 | EA | UV FILTER BULKHEAD ASSY |
| | 22.9678.0631 | 1 | EA | UV FILTER BULKHEAD ASSY (VL3500 QUIET) |
| - | 25.9678.0012 | 1 | EA | CABLE ASSY, AC FAN YOKE TO FAN (not shown) |
| - | 25.9678.0014 | 1 | EA | CABLE ASSY, BACKCAP INTERLOK TO GOBO INTERLOK (not shown) |
| - | 25.9678.0691 | 1 | EA | CABLE ASSY, OT SWITCH (not shown) |
| | 25.9678.0690 | 1 | EA | CABLE ASSY, OT SWITCH (VL3500 QUIET) (not shown) |
| 12 | 53.2004.0002 | 6 | EA | NUT, 8-32 KEPS ZINC PLATE |
| 13 | 53.6519.0001 | 2 | EA | SCREW, 4-40 X 5/8" PPZ |
| 14 | 53.6545.0009 | 4 | EA | SCREW, 8-32 X 1.375"LG PFZ |
| 15 | 53.6523.0001 | 1 | EA | SCREW, 6-32 X 3/8" SCB |
| 16 | 53.6558.0007 | 6 | EA | SCREW, 6-32 X 1/4" PPZ SEMS |
| 17 | 53.6559.0001 | 4 | EA | SCREW, 4-40 X 1/4" PFZ |
| 18 | 53.6609.0001 | 6 | EA | SCREW, 6-32 X 3/8" PFZ |
| - | 55.6538.0001 | 2 | EA | WASHER, #4 LOCK, INTERNAL TOOTH |
| 19 | 53.6613.0001 | 1 | EA | SCREW, 6-32 X 1/2" PPZ |
| 20 | 53.6614.0003 | 2 | EA | SCREW, 6-32 X 5/8" PFZ |
| 21 | 53.6616.0001 | 2 | EA | SCREW, 6-32 X 3/4" PPZ |
| 22 | 53.6682.0002 | 2 | EA | SCREW, 4-40 X 1/4"LG PPZ SEMS |
| 23 | 55.2125.0003 | 4 | EA | STANDOFF, 3/8"HEX 8-32 1.500"L |
| 24 | 55.6538.0004 | 7 | EA | WASHER, .750"OD .312"ID .125TH |
| 25 | 55.6541.0008 | 1 | EA | GROMMET, 1/2"ID 7/8"OD 3/4"GRV |

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--------------------------------------|
| 26 | 55.6706.0001 | 4 | EA | GROMMET, 9/32"ID 9/16"OD 1/4T |
| 27 | 74.1099.0001 | 1 | EA | SWITCH, MINIATURE 5AMP 150DEG |
| - | 10.9678.0680 | 1 | EA | INSULATOR, TEFLON TO-220 (not shown) |
| - | 53.2200.0004 | 1 | EA | NUT, 4-40 KEPS SS |
| 28 | 53.6613.0004 | 3 | EA | SCREW, 6-32 X 1/2" SCZ |
| 29 | 10.9678.1645 | 1 | EA | FAN SHIELD, LAMP COOLING |

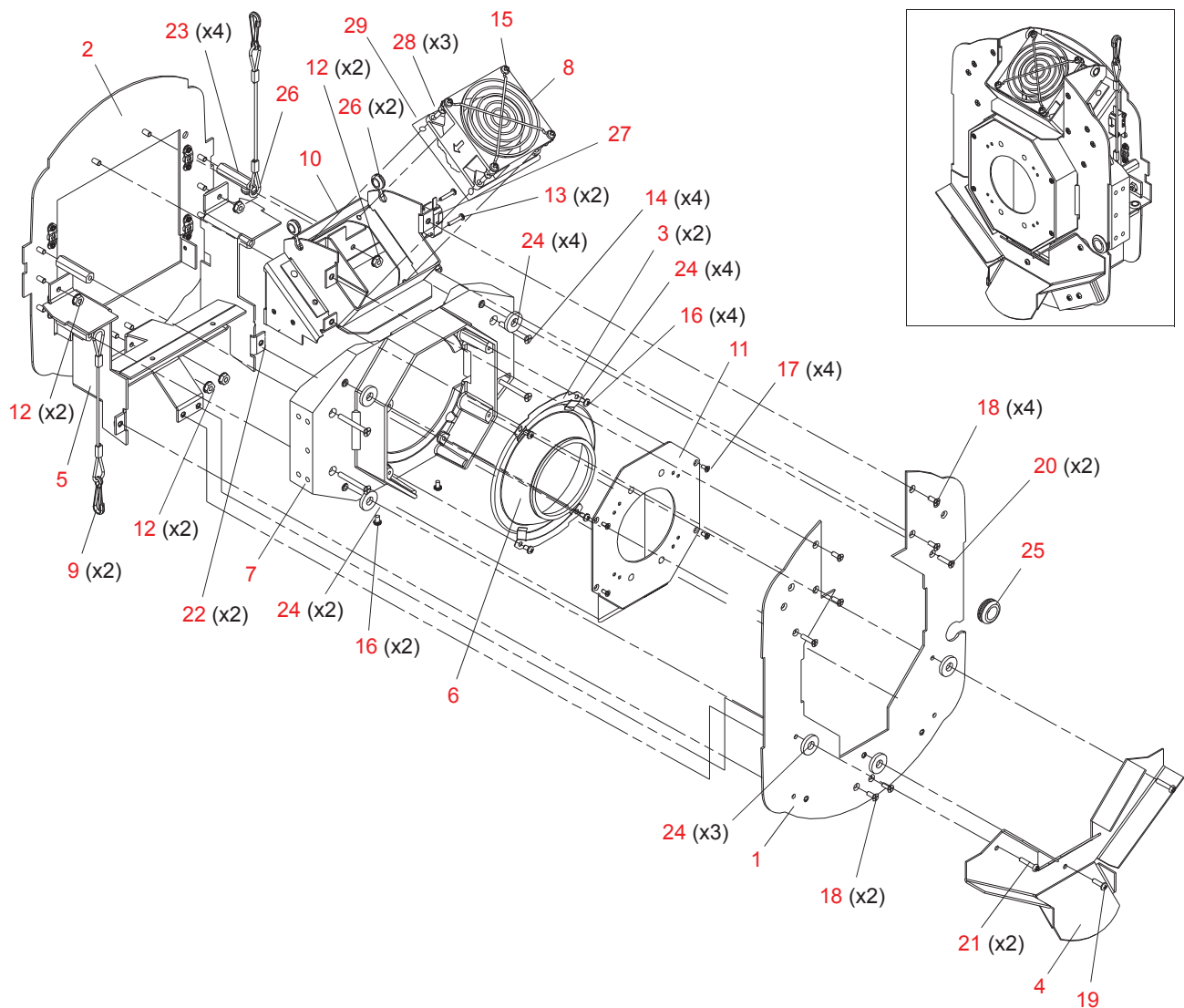


Figure 3-4: Backcap Assembly - VL3500 & VL3500 Q

80mm Fan Assembly

21.9678.0619 Rev B (VL3500 and VL3500 Quiet)

Refer to [Figure 3-5](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 40.7145.0004 | 1 | EA | FAN, TUBEAXIAL 80 X 80 X 38MM 230V 28 CFM |
| 2 | 53.2200.0006 | 4 | EA | NUT, 6-32 KEPS SS |
| 3 | 53.6558.0001 | 4 | EA | SCREW, 6-32 X 3/8" PPZ |
| 4 | 55.7016.0001 | 1 | EA | FAN GUARD, 80MM NICKEL PLATED STEEL WIRE |

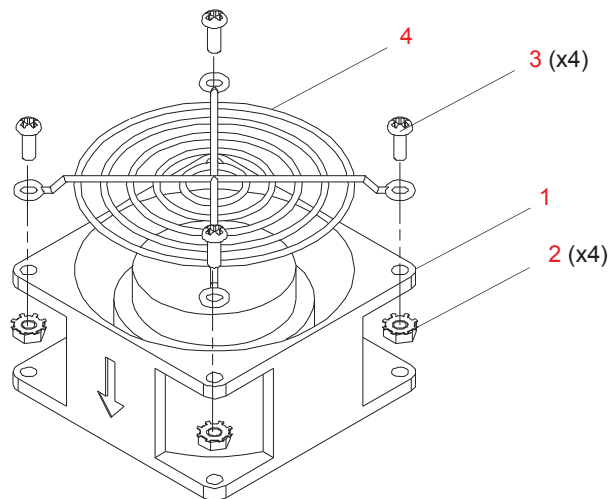


Figure 3-5: 80mm Fan Assembly - VL3500 and VL3500 Quiet

UV Filter Bulkhead Assembly

22.9678.0617 Rev A (VL3500 Quiet)

22.9678.0639 Rev C (VL3500 Only)

Refer to [Figure 3-6](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 10.9678.0634 | 1 | EA | UV FILTER BULKHEAD |
| 2 | 10.9678.0648 | 2 | EA | CLIP, UV GLASS |
| 3 | 41.9678.1160 | 1 | EA | UV/IR FILTER, 3.00" X 3.00" (VL3500 QUIET) |
| | 41.9678.0608 | 1 | EA | UV/IR FILTER, 3.00" X 3.00" |
| 4 | 53.6530.0002 | 4 | EA | RIVET, 1/8 OD POP, .063-.125 GRIP, ALUM |

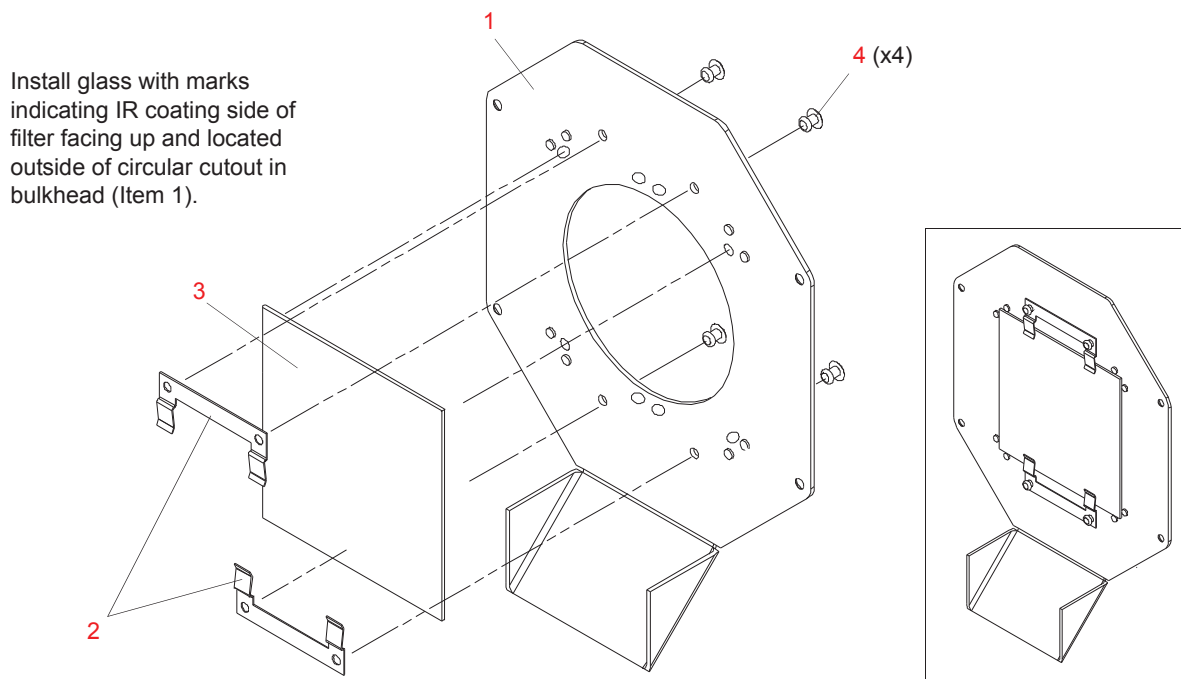


Figure 3-6: UV Filter Bulkhead Assembly - VL3500 and VL3500 Q

Notes

Gobo/Shutter Assembly

21.9678.1200 Rev G

Refer to [Figure 3-7](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|---|
| 1 | 10.9678.0338 | 1 | EA | PULLEY, ZOOM MOTOR |
| 2 | 10.9678.0225 | 6 | EA | SHAFT, GOBO WHEEL |
| 3 | 10.9678.0231 | 2 | EA | PULLEY, MOTOR GOBO WHEEL DRIVE |
| 4 | 10.9678.0232 | 1 | EA | PULLEY, INSEX DRIVE 64 GROOVE |
| 5 | 10.9678.0246 | 3 | EA | ADJUST PLATE, MOTOR |
| 6 | 10.9678.1215 | 1 | EA | BULKHEAD, SHUTTER MODULE FRONT |
| 7 | 10.9678.1244 | 1 | EA | MOUNT, INDEX SENSOR LONG |
| 8 | 10.9678.1558 | 1 | EA | SPRING, TENSION, SHUTTER ROTATE |
| 9 | 21.9678.0243 | 2 | EA | ASSY, MOTOR LONG SHAFT |
| 10 | 21.9678.1205 | 1 | EA | ASSY, ROTATING GOBO WHEEL, SHUTTER |
| 11 | 21.9678.1510 | 1 | EA | ASSY, SHUTTER |
| 12 | 21.9678.1555 | 2 | EA | ASSY, ROLLER PIVOT, ROTATE |
| 13 | 22.9678.1550 | 2 | EA | ASSY, SHUTTER ROTATE ROLLER |
| 14 | 24.9663.1231 | 2 | EA | PCB ASSY, INDEX SENSOR |
| - | 25.9678.1209 | 1 | EA | CABLE ASSY, GOBO/ROTATE INTERCONNECT (Not Shown) |
| 15 | 44.9663.1202 | 1 | EA | MOTOR, 17 2.42" SHAFT 11.8MH |
| 16 | 44.9663.1766 | 1 | EA | MOTOR, 17 1.24" SHAFT 11.8MH 5 |
| 17 | 53.5558.0125 | 8 | EA | SCREW, 8-32 X .125" SET SS |
| 18 | 53.5638.0252 | 6 | EA | SCREW, 6-32 X 3/8" PFZ UNDERCUT HD |
| 19 | 53.6520.0375 | 2 | EA | SCREW, 4-40 X 3/8" PPZ SEMS |
| 20 | 53.6558.0001 | 4 | EA | SCREW, 6-32 X 3/8" PPZ |
| 21 | 53.6558.0009 | 4 | EA | SCREW, 6-32 X 3/8" LG PPZ SEMS |
| 22 | 53.6609.0001 | 4 | EA | SCREW, 6-32 X 3/8" PFZ |
| 23 | 53.6613.0001 | 8 | EA | SCREW, 6-32 X 1/2" PPZ |
| 24 | 53.6682.0002 | 2 | EA | SCREW, 4-40 X 1/4" PPZ SEMS |
| 25 | 54.1259.0004 | 2 | EA | BEARING, FLANGED .25" ID .625" OD .0005 RP |
| 26 | 54.2062.0001 | 1 | EA | BELT, TIMING MXL .080"PITCH 160 GRV 1/8" W POL/KVLR |
| 27 | 55.2178.0001 | 4 | EA | CABLE ANCHOR MOUNT, #8 SCREW |
| 28 | 55.6506.0001 | 1 | EA | SPACER, 3/8" RND .297" LG .257" ID |
| 29 | 55.6506.0030 | 1 | EA | SPACER, 3/8" RND 3/8" LG .257" ID THRU ALUM |
| 30 | 55.6506.0032 | 1 | EA | SPACER, 3/8" RND 1-1/4" LG .257"ID THRU AL |

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| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 31 | 55.6506.0033 | 4 | EA | SPACER, 3/8" RND 1-1/8" LG .257"ID THRU AL |
| 32 | 55.6520.0001 | 4 | EA | WASHER WAVE SPRING .265" ID .367" OD .006" THK |

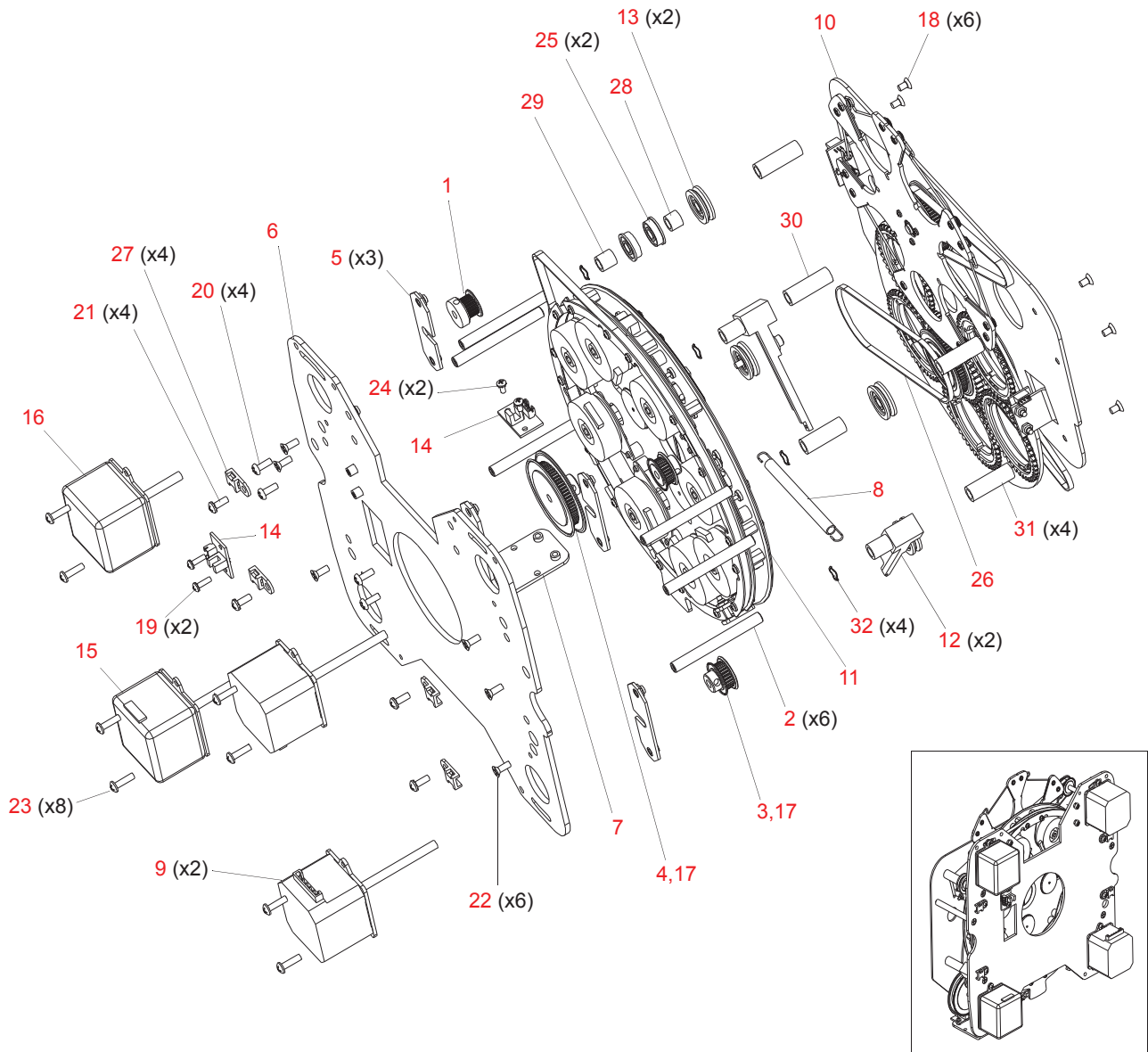


Figure 3-7: Gobo/Shutter Assembly

Rotating Gobo Wheel Assembly, Shutter

21.9678.1205 Rev B

Refer to Figure 3-8

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 10.9678.1216 | 1 | EA | BULKHEAD, SHUTTER MODULE, REAR |
| 2 | 10.9678.1225 | 2 | EA | SHAFT, GOBO WHEEL, CANTILEVER |
| 3 | 21.9678.1210 | 1 | EA | ASSY, ROTATING GOBO WHEEL |
| 4 | 21.9678.1410 | 1 | EA | ASSY, FIXED GOBO WHEEL |
| 5 | 24.9678.1240 | 2 | EA | ASSY, PCB, WHEEL POSITION SENSOR |
| 6 | 53.6520.0001 | 4 | EA | SCREW, 4-40 X 3/8" PPZ |
| 7 | 53.6601.0001 | 6 | EA | SCREW, 4-40 X 3/16" PFZ |
| 8 | 54.2007.0001 | 2 | EA | RING, RETAINING, EXTERNAL, 1/4" SHAFT DIA |
| 9 | 54.2057.0001 | 1 | EA | TIMING BELT, MXL, 144 GRV, .188" WD, KEVLAR |
| 10 | 54.2061.0001 | 1 | EA | TIMING BELT, MXL, 144 GRV, .125" WD, KEVLAR |
| 11 | 55.2110.0002 | 2 | EA | WASHER, .400" OD, .260" ID, .010" THK FLAT SS |
| 12 | 55.6506.0034 | 1 | EA | SPACER, .375" OD, .257" ID, .063" LG, AL |
| 13 | 55.6520.0001 | 2 | EA | WASHER, WAVE SPRING, .265" ID, .367" OD, .006" THK |

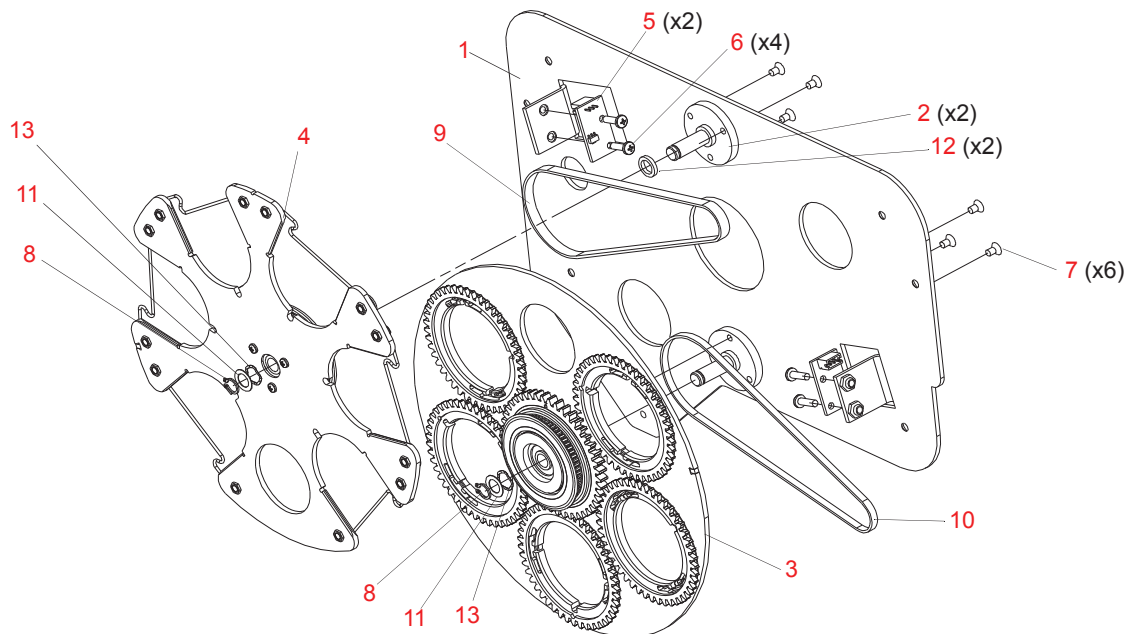


Figure 3-8: Rotating Gobo Wheel Assembly

Fixed Gobo Wheel Assembly

21.9678.1410 Rev B

Refer to [Figure 3-9](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.0250 | 1 | EA | MAGNET TAPE .375"W x .625" L x .0035" THICK |
| 2 | 10.9678.1412 | 1 | EA | PLATE, ROTATING GOBO WHEEL |
| 3 | 10.9678.1425 | 6 | EA | FIXED GOBO RETAINING WIRE |
| 4 | 22.9678.1415 | 1 | EA | ASSY, PULLEY, FIXED WHEEL HUB |
| 5 | 53.6601.0002 | 12 | EA | SCREW, 4-40 X 3/16" PTHZ |
| 6 | 53.6650.0001 | 3 | EA | SCREW, 2-56 X 5/16" PPZ |
| 7 | 55.2256.0001 | 1 | EA | MAGNET, 2:17 SMCO 2MM X 2MM X 3MM |
| 8 | 55.3301.0008 | 6 | EA | WASHER, #8 FLAT SS |
| 9 | 55.6568.0078 | 6 | EA | SPRING, CURVED DISK .322" OD, .174" ID .005 T |

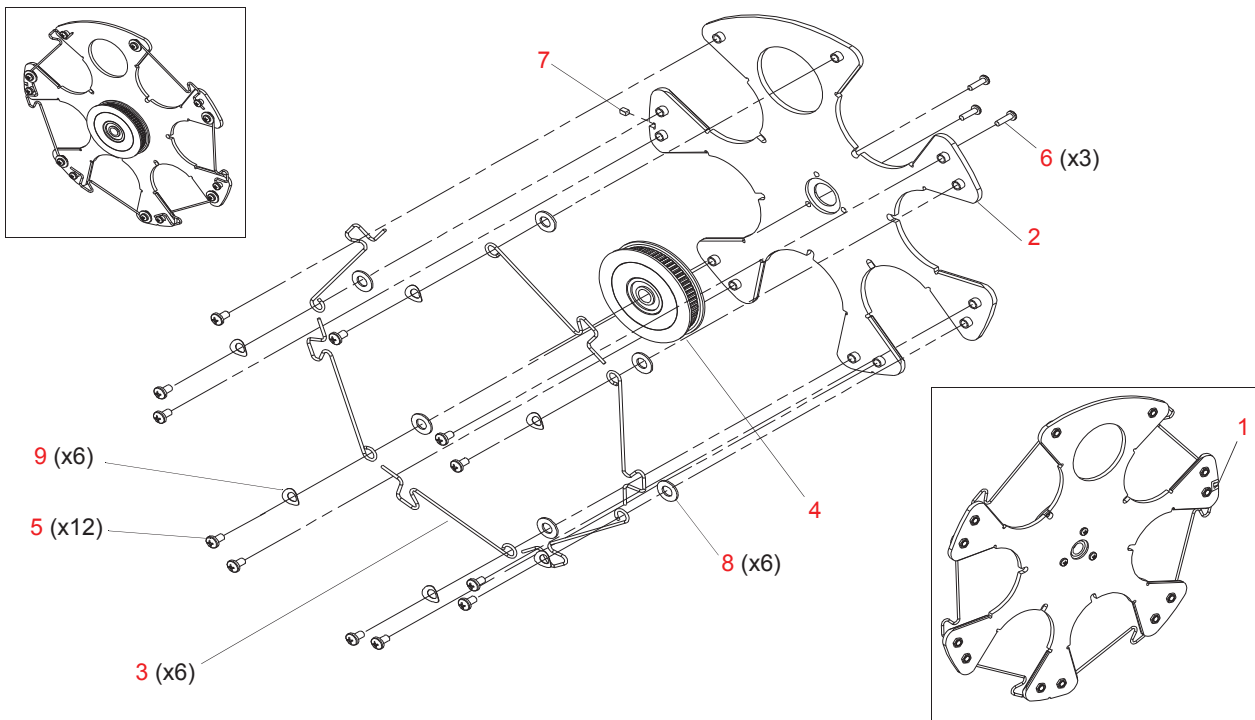


Figure 3-9: Fixed Gobo Wheel Assembly

Rotating Gobo Wheel Assembly

21.9678.1210 Rev 0

Refer to Figure 3-10

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.0250 | 1 | EA | MAGNET TAPE .375"W x .625" L x .0035" THICK |
| 2 | 10.9663.1211 | 10 | EA | SPACER, TEFLON GOBO GEAR |
| 3 | 10.9663.1240 | 5 | EA | BEARING, GOBO WHEEL BORE |
| 4 | 10.9678.0220 | 1 | EA | PLATE, ROTATING GOBO WHEEL |
| 5 | 10.9678.0224 | 5 | EA | RETAINING RING, PLANET |
| 6 | 12.9678.1223 | 1 | EA | SUN GEAR, MOLDED, WITH FLANGE, MODIFIED |
| 7 | 22.9678.0230 | 5 | EA | ASSY, PLANET GEAR |
| 8 | 22.9678.1234 | 1 | EA | ASSY, PULLEY GOBO WHEEL HUB |
| 9 | 22.9678.1235 | 1 | EA | ASSY, GOBO WHEEL HUB, INDEX |
| 10 | 53.6659.0009 | 3 | EA | SCREW, 2-56 X 7/16" PPZ |
| 11 | 55.2256.0001 | 1 | EA | MAGNET, 2:17 SMCO 2MM X 2MM X 3MM |

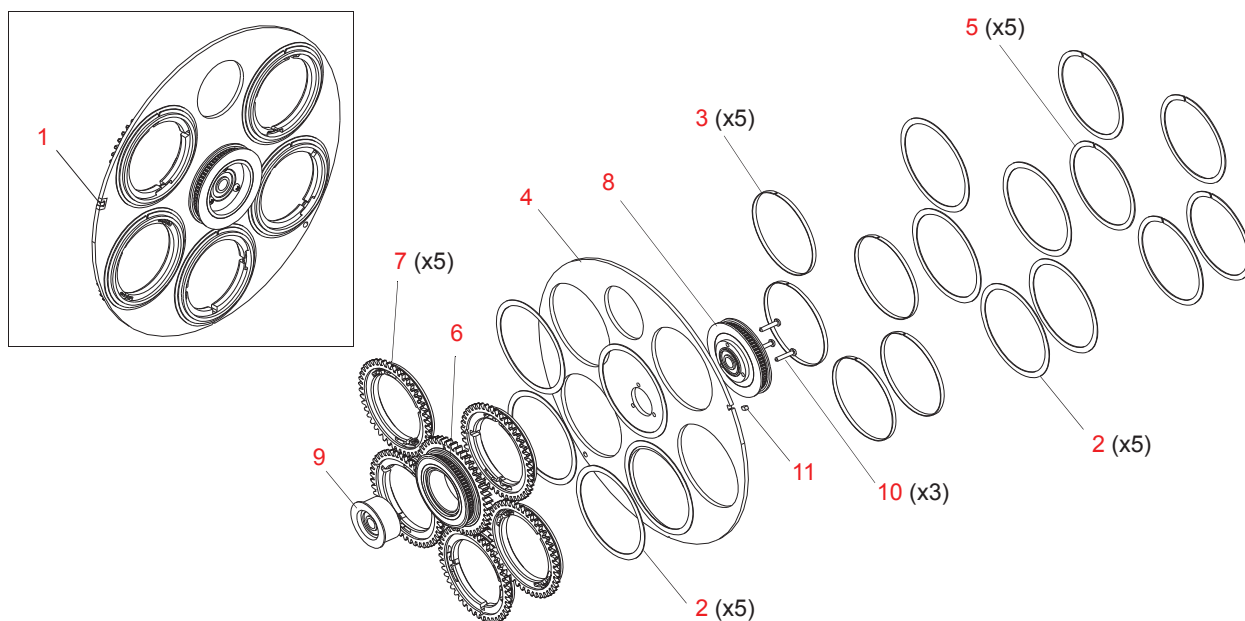


Figure 3-10: Rotating Gobo Wheel Assembly

Roller Pivot Rotate Assembly

21.9678.1555 Rev 0

Refer to [Figure 3-11](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|------------------------------|
| 1 | 10.9678.1551 | 1 | EA | ROLLER PIVOT, SHUTTER ROTATE |
| 2 | 22.9678.1550 | 1 | EA | ASSY, SHUTTER ROTATE, ROLLER |
| 3 | 53.6609.0001 | 1 | EA | SCREW, 6-32 X 3/8" PFZ |

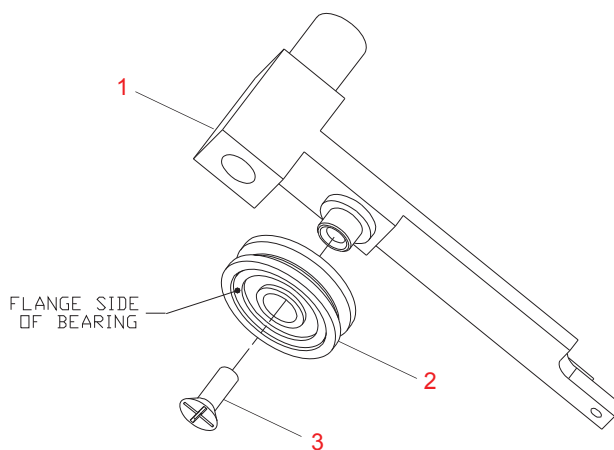


Figure 3-11: Roller Pivot Rotate Assembly

Shutter Rotate Roller Assembly

22.9678.1550 Rev B

Refer to [Figure 3-12](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 10.9678.1552 | 1 | EA | ROLLER SHUTTER ROTATE |
| 2 | 54.1259.0005 | 1 | EA | BEARING, FLANGED, .25" ID, .625" OD, .0001 |

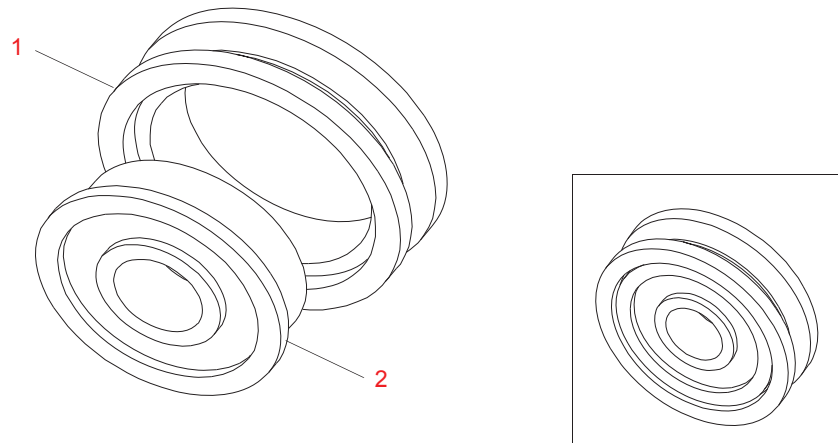


Figure 3-12: Shutter Rotate Roller Assembly

Long Shaft Motor Assembly

21.9678.0243 Rev 0

Refer to [Figure 3-13](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---------------------------------------|
| 1 | 10.9678.0330 | 1 | EA | PLATE, MOTOR ADAPTER |
| 2 | 44.9678.0249 | 1 | EA | MOTOR, STEPPER 42MM X 34MM 60MM SHAFT |
| 3 | 53.6513.0002 | 4 | EA | SCREW, 3MM X 5MM LG PFZ METRIC |

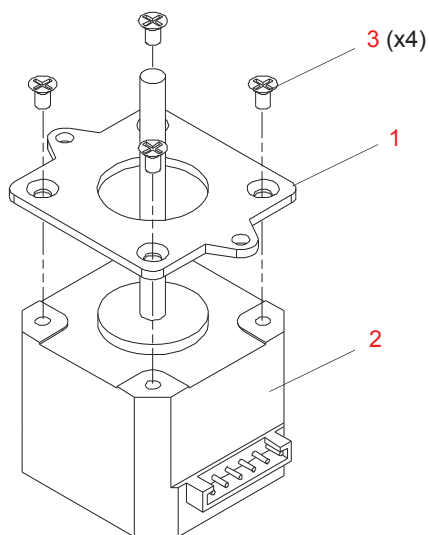


Figure 3-13: Long Shaft Motor Assembly

Shutter Assembly

21.9678.1510 Rev G

Refer to [Figure 3-14](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 10.9678.1526 | 2 | EA | PIVOT, SHUTTER BLADE, SHORT |
| 2 | 10.9678.1527 | 2 | EA | PIVOT, SHUTTER BLADE, LONG |
| 3 | 10.9678.1528 | 16 | EA | CAM STOP |
| 4 | 10.9678.1529 | 1 | EA | CABLE CLAMP, SHUTTER |
| 5 | 10.9678.1532 | 4 | EA | GLIDE, BLADE PIVOT |
| 6 | 10.9678.1534 | 8 | EA | ACTUATOR ARM, BEARING, SHUTTER |
| 7 | 10.9678.1535 | 1 | EA | GLIDE SHEET, SHUTTER, BOTTOM |
| 8 | 10.9678.1536 | 1 | EA | GLIDE SHEET, SHUTTER, MIDDLE |
| 9 | 10.9678.1537 | 4 | EA | SPACER, SHUTTER BLADE |
| 10 | 10.9678.1540 | 4 | EA | BELT RING SECTOR |
| 11 | 10.9678.1541 | 7 | EA | BELT RING FLANGE SECTOR |
| 12 | 10.9678.1542 | 1 | EA | BELT RING FLANGE STOP |
| 13 | 10.9678.1543 | 1 | EA | BELT CLAMP, BOTTOM |
| 14 | 10.9678.1544 | 1 | EA | BELT CLAMP, TOP |
| 15 | 12.9678.1562 | 2 | EA | BLADE, SHUTTER, BOTTOM, COATED |
| 16 | 12.9678.1565 | 2 | EA | BLADE, SHUTTER, TOP, COATED, PAINTED |
| 17 | 21.9678.1515 | 1 | EA | ASSY, SHUTTER MOTOR PLATE |
| 18 | 53.2202.0004 | 6 | EA | NUT, 4-40 HEX SS NYLON INSERT |
| 19 | 53.6536.0625 | 2 | EA | SCREW, 4-40 X 5/8" PFZ |
| 20 | 53.6567.0001 | 16 | EA | SCREW, 4-40 X 1/2" PPZ |
| 21 | 53.6659.0005 | 4 | EA | SCREW, 2-56 X 1/4" PFZ |
| 22 | 53.6659.0014 | 16 | EA | SCREW, 2-56 X 3/8" PFZ |
| 23 | 53.6596.0001 | 8 | EA | SCREW, 4-40 X 5/16" PPZ |
| 24 | 53.6664.0001 | 8 | EA | STANDOFF, 1/4" HEX 4-40 3/8" LG FF |
| 25 | 53.6667.0004 | 16 | EA | SCREW, 6-32 X 1/8" LG, SET, BLACK |
| 26 | 54.1209.0003 | 8 | EA | BEARING, .093" ID, 3/16" OD, FLANGED |
| 27 | 54.2064.0001 | 1 | EA | TIMING BELT, MXL 330 GRV, .188" WD, KEVLAR |
| 28 | 55.2186.0001 | 2 | EA | CABLE TIE, .10" X 4", SMALL (not shown) |

Shutter Assembly (continued)

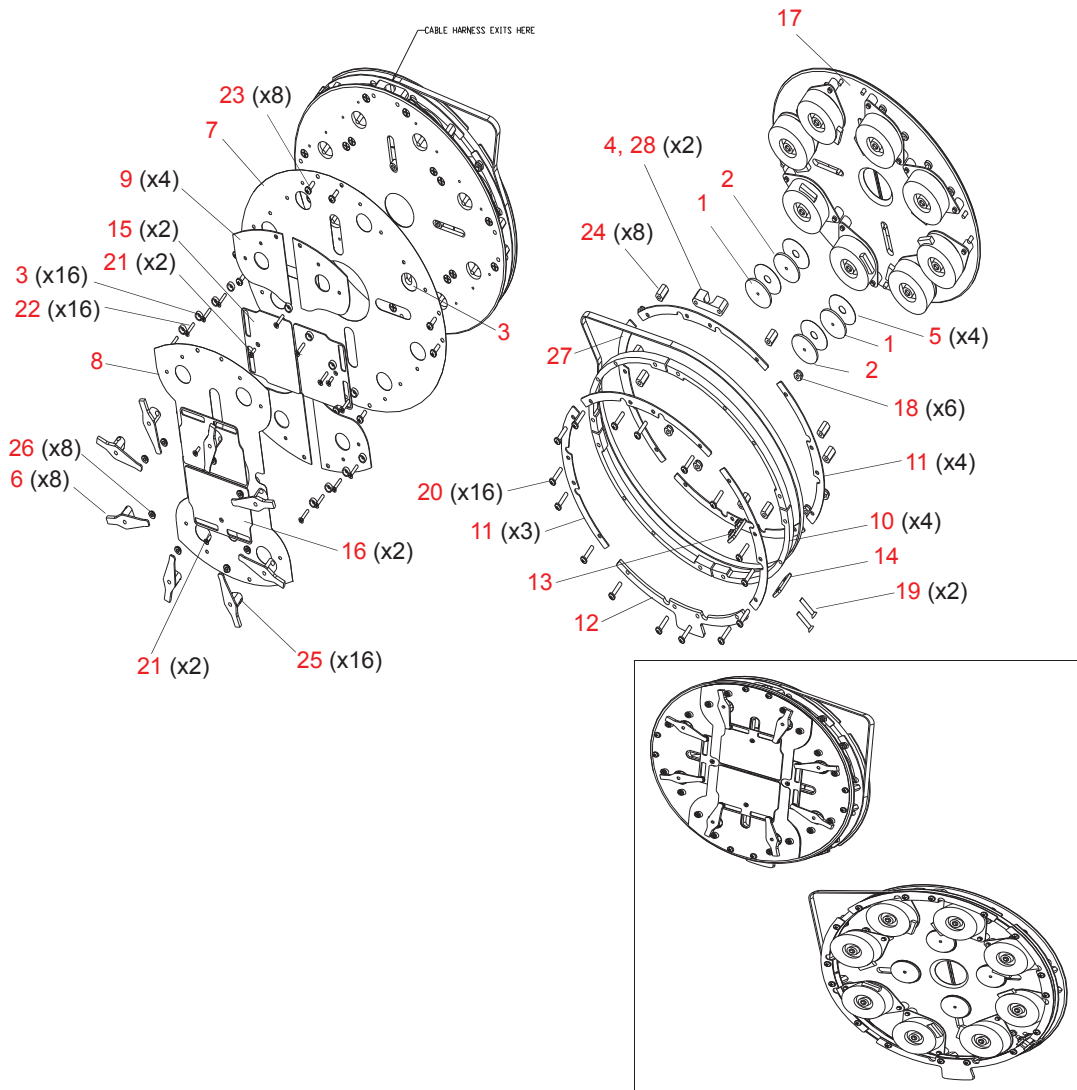


Figure 3-14: Shutter Assembly

Shutter Motor Disk Assembly

21.9678.1515 Rev E

Refer to [Figure 3-15](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-------------------------------------|
| 1 | 10.9678.1560 | 1 | EA | BASE PLATE, SHUTTER |
| 2 | 44.9678.1517 | 8 | EA | MOTOR, PANCAKE, SIZE 16, .47" SHAFT |
| 3 | 53.2202.0030 | 4 | EA | NUT, M3 X .5 HEX NYLOC ZINC |
| 4 | 53.6513.0029 | 8 | EA | SCREW, M3 X 12 PFZ |
| 5 | 53.6513.0045 | 8 | EA | SCREW, M3 X 16 PFZ |
| 6 | 55.2178.0001 | 4 | EA | CABLE ANCHOR, #8 SCREW MOUNT |
| 7 | 55.2186.0001 | 10 | EA | CABLE TIE, .10" X 4" SMALL |
| 8 | 10.9678.1566 | 8 | EA | SPACER, MOTOR MOUNT |
| 9 | 25.9678.1717 | 1 | EA | CABLE ASSEMBLY, SHUTTER DISK |

Shutter Motor Disk Assembly (continued)

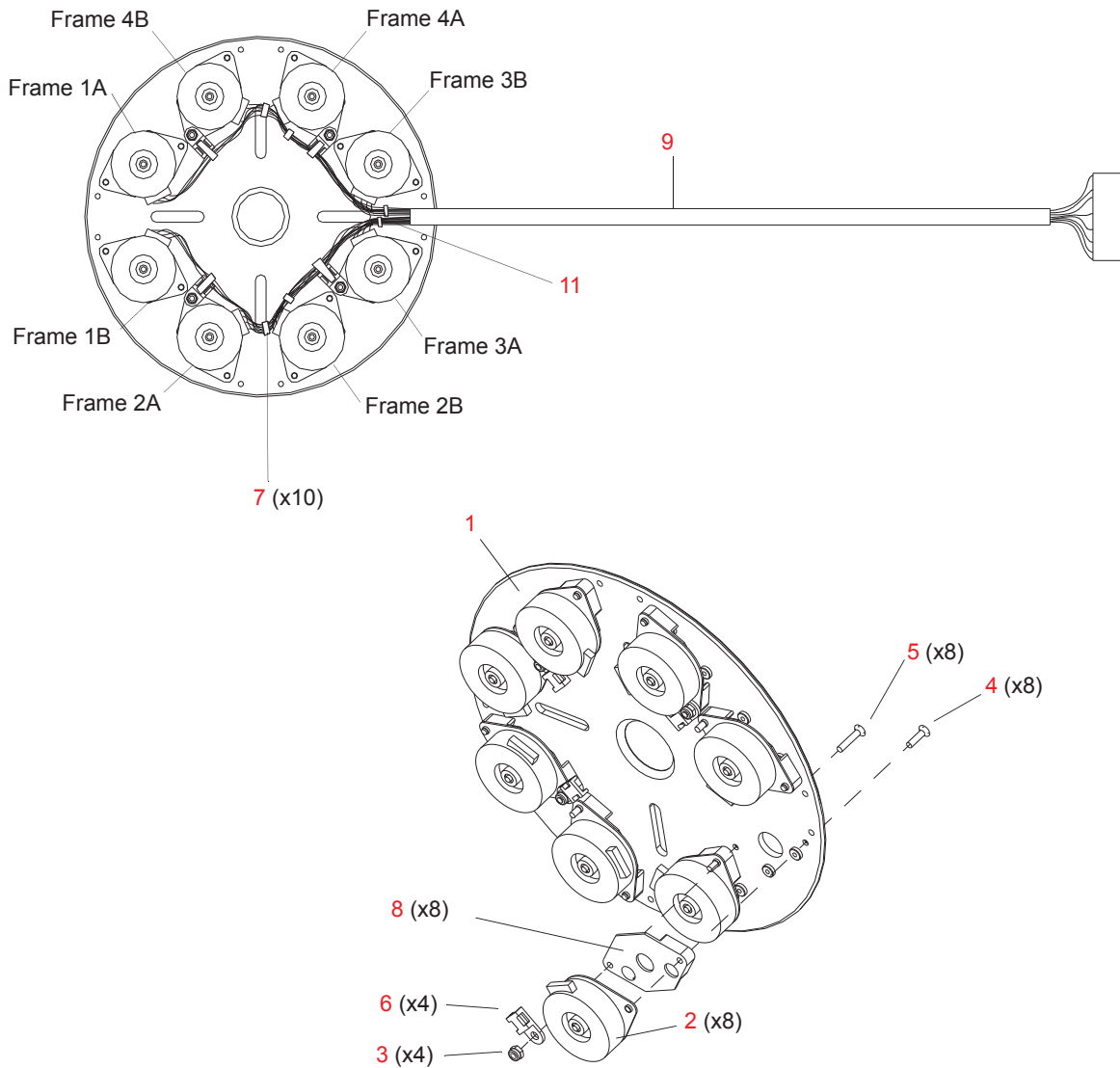


Figure 3-15: Shutter Motor Disk Assembly

Hot Box Assembly

21.9678.8640.01 Rev E (Spot)

21.9678.8698.01 Rev C (Quiet Spot)

Refer to [Figure 3-16](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 04.9678.0042 | 1 | EA | LABEL, VL3000 BACKCAP |
| | 10.9678.0043 | 1 | EA | LABEL, BACKCAP, VL3000 QUIET |
| 2 | 10.9678.0641 | 1 | EA | HOT BOX |
| 3 | 10.9678.0642 | 1 | EA | BACKCAP PLATE |
| 4 | 10.9678.0643 | 1 | EA | LAMP ADJUST STOP |
| 5 | 10.9678.0645 | 3 | EA | KNOB, LAMP ADJ MOLDED |
| 6 | 10.9678.0646 | 1 | EA | TILT PLATE, XYZ ADJUSTMENT |
| 7 | 10.9678.1648 | 4 | EA | GASKET, PRIMARY REFLECTOR |
| 8 | 10.9678.2647 | 4 | EA | CLAMP, PRIMARY REFLECTOR |
| 9 | 55.6759.0003 | 4 | EA | STANDOFF, PEM 6-32 X .562 LG, SST |
| 10 | 55.6568.0077 | 4 | EA | SPRING, COMPRESSION, 0.035 " WIRE, 0.300 DIA X .625" LG |
| 11 | 12.9678.7151 | 1 | EA | REFLECTOR, PRI 40 LUNE DUAL CURVATURE |
| - | 25.9661.1522 | 1 | EA | CABLE ASSY, HEAD TO BACKCAP GROUND (Not Shown) |
| - | 25.9678.0789 | 1 | EA | CABLE ASSY, IGNITOR TO LAMP SOCKET (Not Shown) |
| 12 | 53.6582.0001 | 4 | EA | SCREW, 6-32 X 3/4" PFZ |
| 13 | 53.2030.0001 | 3 | EA | NUT, ACORN 10-32THD 3/8 WIDE, 3/16 THD DP BLK ZINC |
| 14 | 53.5508.0375 | 2 | EA | SCREW, 8-32 X 3/8" PPSS |
| 15 | 53.6530.0013 | 8 | EA | RIVET, 1/8"OD .063" - .125"GL CSK HD ALUM |
| 16 | 55.2233.0003 | 4 | EA | RETAINER, PUSH-ON TYPE |
| 17 | 55.2233.0006 | 4 | EA | STUD, 1/4 TURN OPR .455L STEEL |
| 18 | 55.6546.0004 | 3 | EA | WASHER, TEFLON, .201ID X .438O |
| 19 | 55.6568.0077 | 3 | EA | SPRING, CPRSN .300"OD .625"LG .035"WIRE DIA SS |
| 20 | 71.2561.0002 | 1 | EA | LAMPHOLDER, SFC10-4 WITH PREFOCUS, SHARX |
| | 71.2571.0001 | 1 | EA | LAMPHOLDER, SFC10-4 WITH GOLD CONTACTS, SHARX (VL3500 Q) |

Hot Box Assembly (continued)

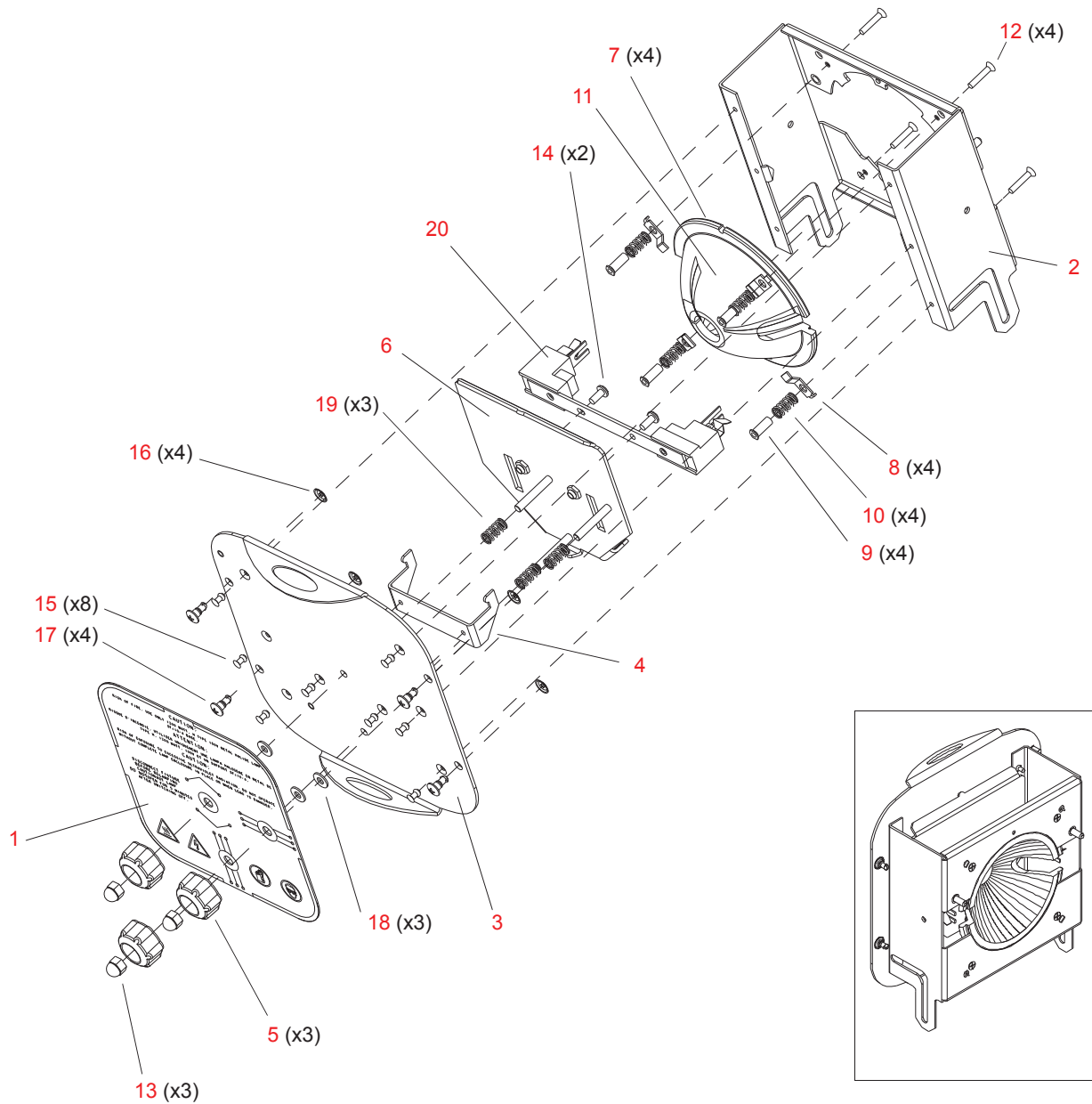


Figure 3-16: Hot Box Assembly

Dual Fan Tray Duct (Standard) Assembly

21.9678.0660.03 Rev B (VL3500 Only)

Refer to Figure 3-17

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-----------------------------------|
| 1 | 10.9678.0665 | 1 | EA | SPRING, EXTENSION ELONGATED HOOKS |
| 2 | 22.9678.0661 | 1 | EA | ASSY, FAN TRAY |
| 3 | 22.9678.1265 | 1 | EA | DUCT ASSY, SHUTTER/GOBO |
| 4 | 23.9678.0684 | 2 | EA | FAN ASSY, HEAD FRONT |
| 5 | 53.5506.1375 | 6 | EA | SCREW, 6-32 X 1 3/8" LG PPB |
| 6 | 53.6519.0001 | 2 | EA | SCREW, 4-40 X 5/8" PPZ |
| 7 | 53.6530.0006 | 2 | EA | RIVET, 1/8" OD POP .188-.250GL |
| 8 | 55.6538.0002 | 2 | EA | WASHER, #6 NYLON NATURAL |
| 9 | 55.6818.0002 | 1 | EA | STANDOFF, 45 DEG NYLON 6/6 KUR |
| 10 | 74.1099.0001 | 1 | EA | SWITCH, MINIATURE 5AMP 150DEG |

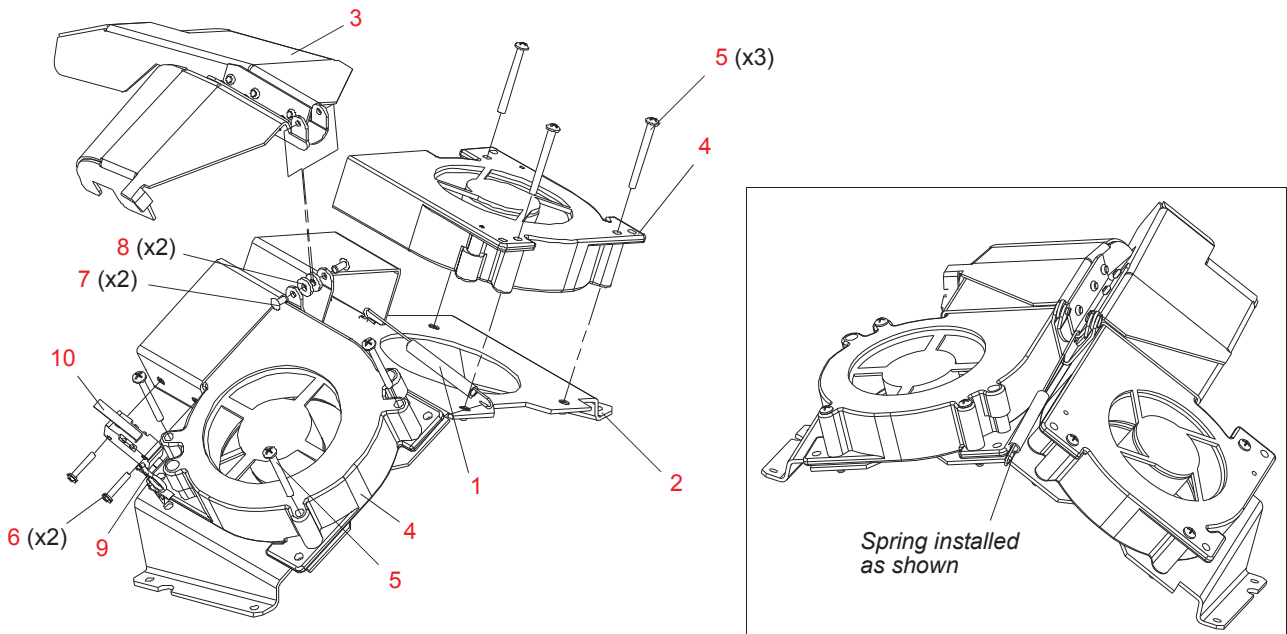


Figure 3-17: Dual Fan Tray Duct (Standard) Assembly - VL3500 Only

Dual Fan Tray Duct (Quiet) Assembly

21.9678.0659.03 Rev D (VL3500Q Only)

Refer to [Figure 3-18](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 10.9678.0665 | 1 | EA | SPRING, EXTENSION ELONGATED HO |
| 2 | 22.9678.0661 | 1 | EA | ASSY, FAN TRAY |
| 3 | 22.9678.1265 | 1 | EA | DUCT ASSY, SHUTTER/GOBO |
| 4 | 23.9678.0699 | 2 | EA | FAN ASSY, HEAD FRONT |
| 5 | 53.5506.1375 | 6 | EA | SCREW, 6-32 X 1 3/8" LG PPB |
| 6 | 53.6519.0001 | 2 | EA | SCREW, 4-40 X 5/8" PPZ |
| 7 | 53.6530.0006 | 2 | EA | RIVET, 1/8" OD POP .188-.250GL |
| 8 | 55.2179.0003 | 2 | EA | SADDLE, CABLE, .75" X .75", 4-WAY ADH BACK WHITE |
| 9 | 55.2186.0001 | 2 | EA | CABLE TIE, .10" WD, 4.00" LG SMALL (not shown) |
| 10 | 55.6538.0002 | 2 | EA | WASHER, #6 NYLON NATURAL |
| 11 | 55.6818.0002 | 1 | EA | STANDOFF, 45 DEG NYLON 6/6 KUR |
| 12 | 74.1099.0001 | 1 | EA | SWITCH, MINIATURE 5AMP 150DEG |

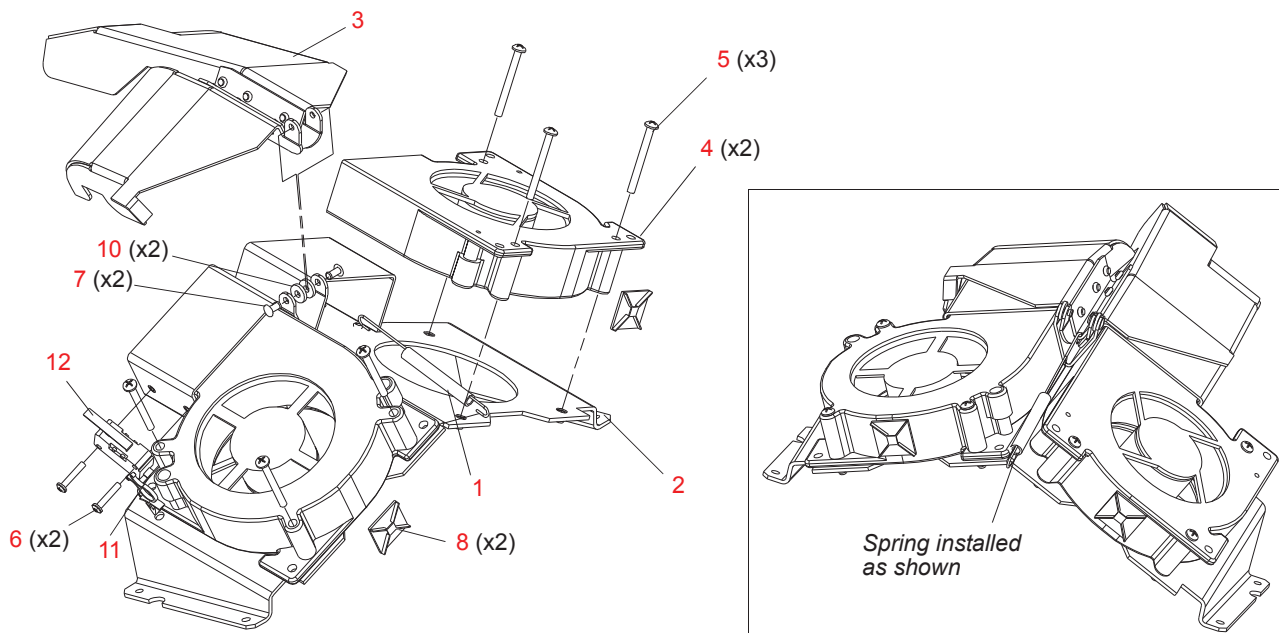


Figure 3-18: Dual Fan Tray Duct (Quiet) Assembly - VL3500Q Only

Head Front Fan (Standard) Assembly

23.9678.0684 Rev 0 (VL3500 Only)

Refer to [Figure 3-19](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 40.7125.0001 | 1 | EA | FAN, 24V FAL6F24LH |
| 2 | 52.6523.0002 | 1 | EA | CONN, HOUSING 2POS PLUG SHROUDED WIRE TO WIRE |
| 3 | 52.8347.0001 | 2 | EA | CONTACT, 24-30AWG MALE CRIMP |

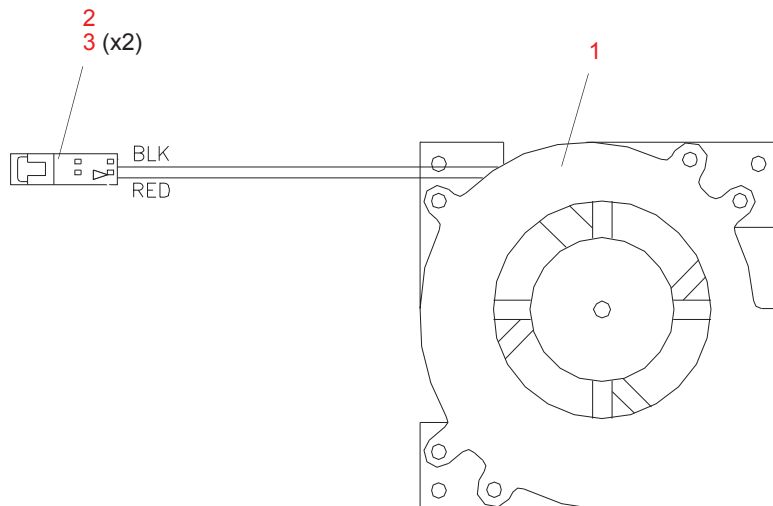


Figure 3-19: Head Front Fan Assembly - VL3500 Only

Head Front Fan (Quiet) Assembly

23.9678.0699 Rev A (VL3500Q Only)

Refer to [Figure 3-20](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 40.7125.0001 | 1 | EA | FAN, 24V FAL6F24LH |
| 2 | 52.6523.0002 | 1 | EA | CONN, HOUSING 2POS PLUG SHROUDED WIRE TO WIRE |
| 3 | 52.8347.0001 | 2 | EA | CONTACT, 24-30AWG MALE CRIMP |
| 4 | 55.2186.0001 | 1 | EA | CABLE TIE, .10 X 4" SMALL |
| 5 | 55.2268.0125 | 1 | EA | HEATSHRINK, 1/8" CLEAR KYNAR UL 600V 150 DEG C |
| 6 | 60.8440.6801 | 1 | EA | RESISTOR, 10W, 5%, 68 OHM WIREWOUND |

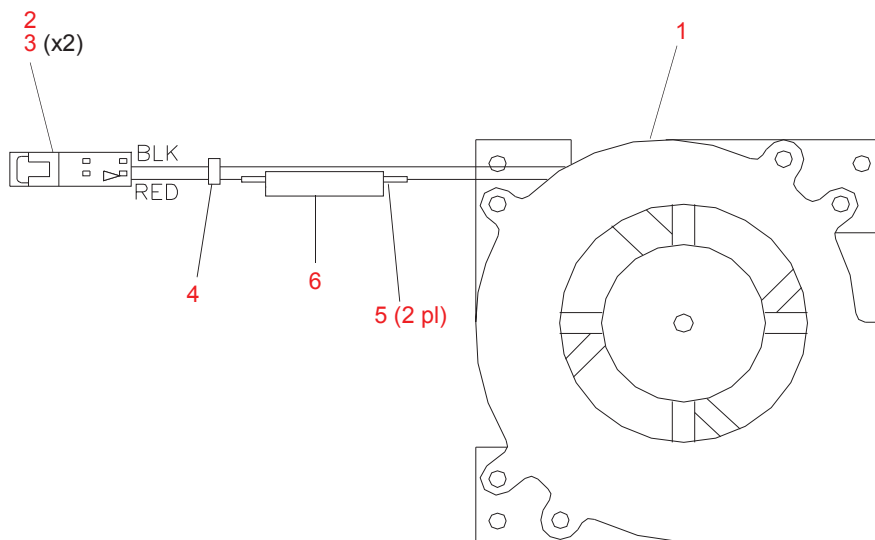


Figure 3-20: Head Front Fan Assembly - VL3500Q Only

Transfer Fan Assembly

21.9678.1263 Rev 0

Refer to [Figure 3-21](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.0679 | 1 | EA | TRANSFER FAN TRAY |
| 2 | 22.9678.1280 | 1 | EA | SHIELD ASSY, SHUTTER ROTATE HARNESS |
| 3 | 23.9678.0695 | 1 | EA | ASSY, TRANSFER FAN |
| 4 | 53.6558.0001 | 1 | EA | SCREW, 6-32 X .375" LG PPZ |
| 5 | 53.6571.0003 | 3 | EA | SCREW, 6-32 X 1.500" LG PPB |
| 6 | 55.2179.0001 | 1 | EA | CABLE ANCHOR, #6 SCREW MOUNT |
| - | 55.2186.0001 | 2 | EA | CABLE TIE, .10" WD, 4" LG, SMALL (not shown) |
| 7 | 55.6543.0001 | 2.12 | IN | GROMMET STRIP, SERRATED POLYETHYLENE |
| 8 | 55.6769.0004 | 2 | EA | TWIST-LOK 0.55" ID NOM WHT 85 C MAX FLAME RET |

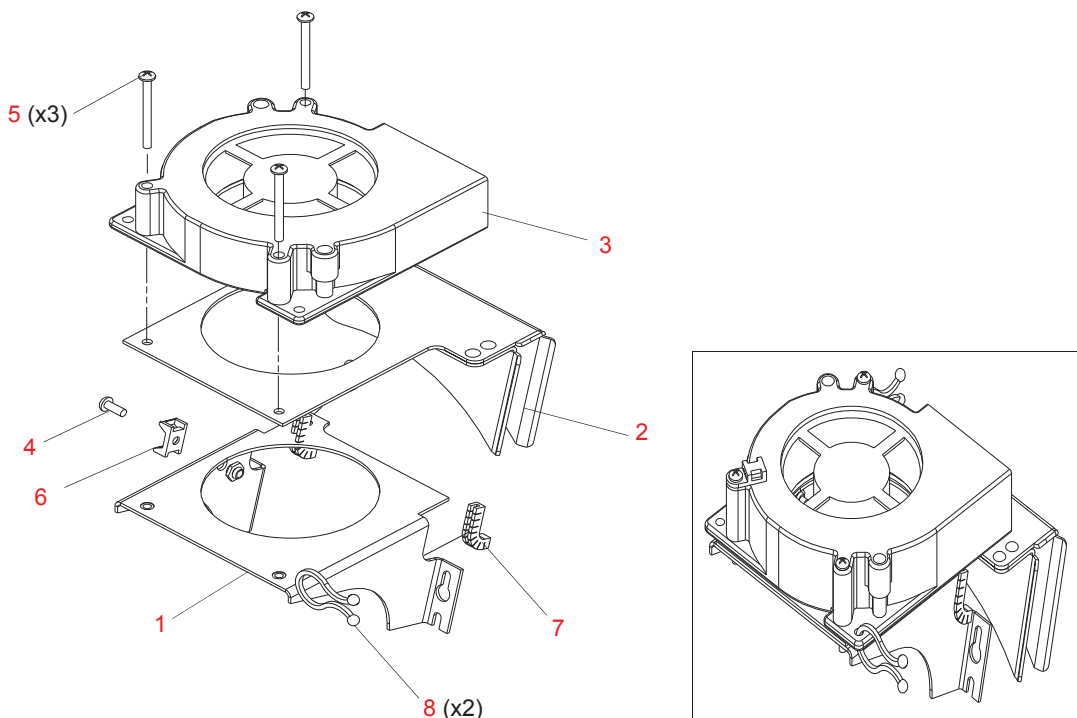


Figure 3-21: Transfer Fan Assembly

NOTES

Spot Optic Assembly

22.9678.0103 Rev R (Spot Only)

Refer to [Figure 3-22](#) and [Figure 3-23](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|---|
| 1 | 10.9678.1131 | 1 | EA | FORWARD PULLEY SHAFT (changed 12-15-04) |
| 2 | 10.9678.0127 | 1 | EA | PULLEY, IDLER |
| 3 | 10.9678.0129 | 2 | EA | SPACER, ROLLER CAM |
| 4 | 10.9678.0153 | 1 | EA | CABLE CLAMP, CAST |
| 5 | 10.9678.0156 | 2 | EA | BARREL STRAP, G1 & G2 |
| 6 | 10.9678.0157 | 1 | EA | BARREL STRAP, G3 |
| 7 | 10.9678.0171 | 1 | EA | SHAFT, CAM PULLEY |
| 8 | 10.9678.1185 | 1 | EA | LIGHT BAFFLE #2 (NOT SHOWN) |
| 9 | 10.9678.1186 | 1 | EA | LIGHT BAFFLE #3 |
| 10 | 10.9678.1191 | 1 | EA | LIGHT BAFFLE, G3 |
| 11 | 12.9678.0174 | 1 | EA | LENS MOUNT, MACHINE G3 |
| 12 | 12.9678.1179.01 | 1 | EA | LENS MOUNT, MACHINE G1 |
| 13 | 12.9678.1179.02 | 1 | EA | LENS MOUNT, MACHINE G2 |
| 14 | 21.9678.0110 | 1 | EA | ASSY, ZOOM BOX |
| 15 | 21.9678.0113 | 1 | EA | ASSY, RAIL & CARRIAGE |
| 16 | 22.9678.1181 | 1 | EA | LENS ASSY, GROUP 1 |
| 17 | 22.9678.0182 | 1 | EA | LENS ASSY, GROUP 2 |
| 18 | 22.9678.0183 | 1 | EA | LENS ASSY, GROUP 3 |
| 19 | 22.9678.0199 | 1 | EA | ASSY, LENS MOUNT G4 |
| 20 | 22.9678.1103 | 1 | EA | ASSY, EDGE BEARING RIGHT |
| 21 | 22.9678.1105 | 1 | EA | ASSY, EDGE BEARING LEFT |
| 22 | 22.9678.1106 | 1 | EA | ZOOM CAM ASSY |
| 23 | 22.9678.1113 | 1 | EA | ASSY, ZOOM MOTOR TENSIONING |
| 24 | 22.9678.1115 | 1 | EA | INTERCONNECT, LIGHT SHIELD |
| 25 | 22.9678.1190 | 1 | EA | LID ASSY, ZOOM BOX (changed 11-05-03) |
| | - 12.9678.1189 | 1 | EA | LID, ZOOM BOX |
| | - 53.2008.0006 | 1 | EA | NUT, PUSH #6 |
| | - 53.6522.0001 | 1 | EA | SCREW, 6-32 X 1/4" PPZ |
| | - 55.3303.0006 | 1 | EA | WASHER, #6 LOCK INT. TOOTH SS |

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| No. | Item | Qty. | UM. | Description |
|------------|----------------|-------------|------------|---|
| 26 | 23.9678.1120 | 1 | EA | LINEAR ACTUATOR ASSEMBLY |
| | - 44.9678.0119 | 1 | EA | LINEAR ACTUATOR EDGE DRIVE |
| | - 52.6467.0004 | 1 | EA | 4 POS 30-24 AWG CRIMP PHR |
| | - 52.6467.0024 | 4 | EA | CONTACT, SOCKET 30-24AWG CRIMP (REEL) PH (JST) |
| 27 | 24.9678.3112 | 1 | EA | PCB ASSY, VL3000 ZOOM SENSOR |
| 28 | 53.2004.0002 | 1 | EA | NUT, 8-32 KEPS ZINC PLATE |
| 29 | 53.2213.0001 | 7 | EA | NUT, #6 KEPS (changed 03-24-04) |
| 30 | 53.5564.0250 | 2 | EA | SCREW, 6-32 X 1/4" PFB UNDERCUT (added 04-07-06) |
| 31 | 53.5604.0375 | 5 | EA | SCREW, 4-40 X 3/8" PPB (changed 03-24-04) |
| 32 | 53.6513.0023 | 6 | EA | SCREW, M3 X 8MM LG PFZ METR |
| 33 | 53.6558.0009 | 17 | EA | SCREW, 6-32 X 3/8" SEMS (changed 03-24-04) |
| 34 | 53.6558.0016 | 1 | EA | SCREW, 6-32 X 3/4" LG PPS SEMS (changed 3-03-04) |
| 35 | 53.6596.0002 | 4 | EA | SCREW, 4-40 X 5/16" LG PPZ SEMS (changed 3-03-04) |
| 36 | 53.6609.0001 | 6 | EA | SCREW, 6-32 X 3/8" PFZ |
| 37 | 53.6613.0008 | 4 | EA | SCREW, 6-32 X 1/2" LG PPZ SEMS (added 3-03-04) |
| 38 | 53.6614.0003 | 2 | EA | SCREW, 6-32 X 5/8" PFZ (NOT SHOWN) |
| 39 | 53.6617.0003 | 1 | EA | SCREW, 6-32 X 1" PPB SEMS (changed 3-03-04) |
| 40 | 53.6682.0025 | 2 | EA | SCREW, 8-32 X 5/8" LNG PPZ SEMS (changed 11-19-03) |
| 41 | 54.1261.0001 | 6 | EA | BUSHING, LOW DAMP THERMOPLASTIC .189" ID .5" OD |
| 42 | 55.2234.0001 | 1 | EA | RING, RETAINING E-STYLE GRV.188 DIA (changed 02-06-05) |
| 43 | 54.2053.0001 | 1 | EA | MXT T BELT PULLEY, 20GRV .25WD |
| 44 | 54.2054.0001 | 1 | EA | BELT, TIMING MXL .080 PITCH 235 G, 3/16" WIDE, POLYU/KEVLAR |
| 45 | 54.1262.0001 | 2 | EA | BEARING, FLANGED EXTENDED .1875 BORE (changed 12-15-04) |
| 46 | 55.2283.0001 | 4 | EA | SHIM, SPACER .253" IDX, .010" THK |
| 47 | 55.6503.0004 | 3 | EA | WASHER, #8 FLAT ZINC (changed 03-24-04) |
| 48 | 55.6528.0001 | 5 | EA | WASHER, #6 FLAT ZINC |
| 49 | 55.6578.0073 | 1 | EA | SPRING, EXTSN .375"OD |
| 50 | 55.6846.0001 | 2 | EA | CAM FOLLOWER, 3MM DIA STUD |
| 51 | 10.9678.1140 | 1 | EA | SHOCK PAD, G1 (added 12-15-04) |
| 52 | 10.9678.1141 | 1 | EA | BACKING PLATE, SHOCK PAD, G1 (added 12-15-04) |

Spot Optic Assembly (continued)

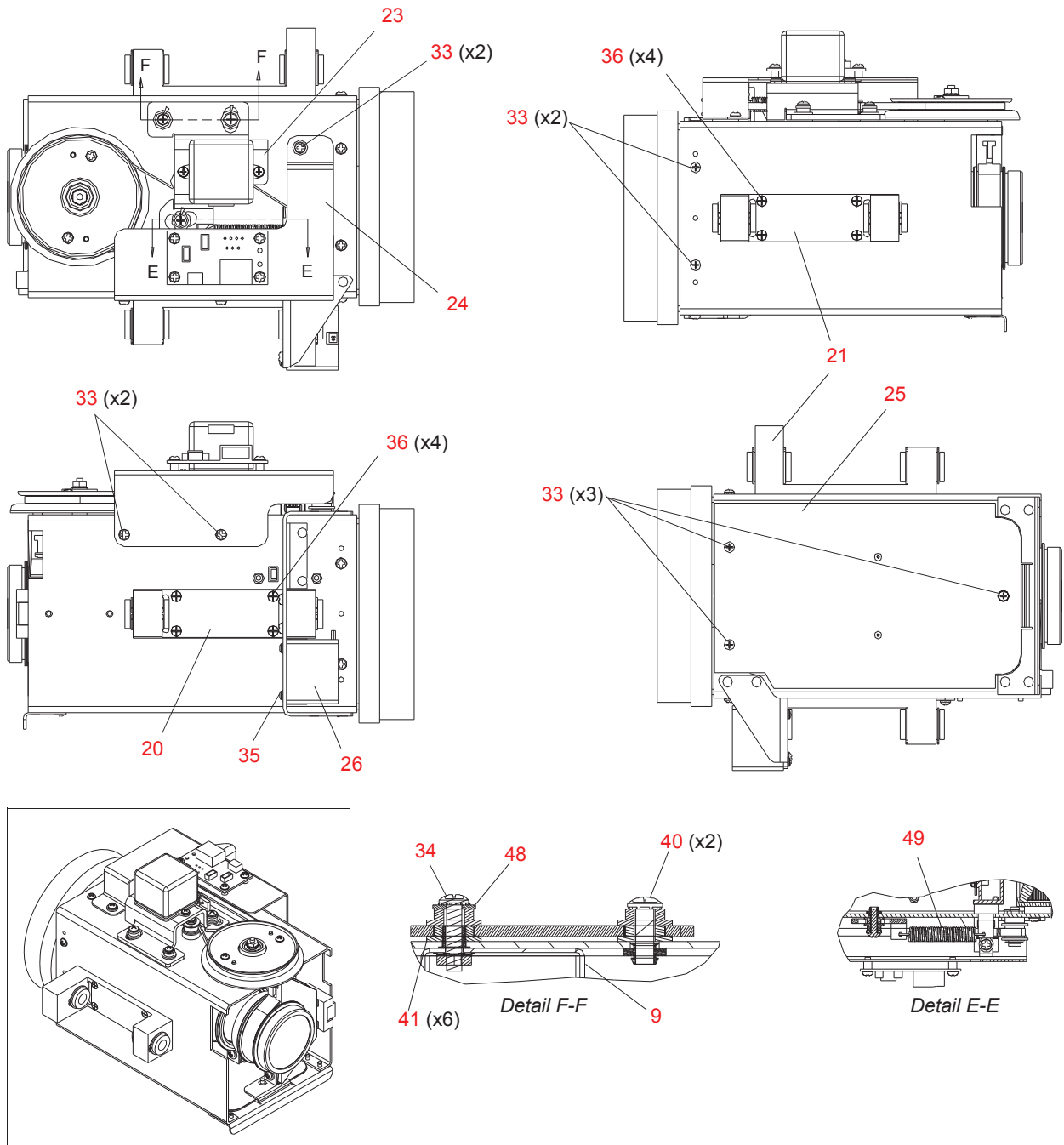


Figure 3-22: Spot Optic Assembly View 1

Spot Optic Assembly (continued)

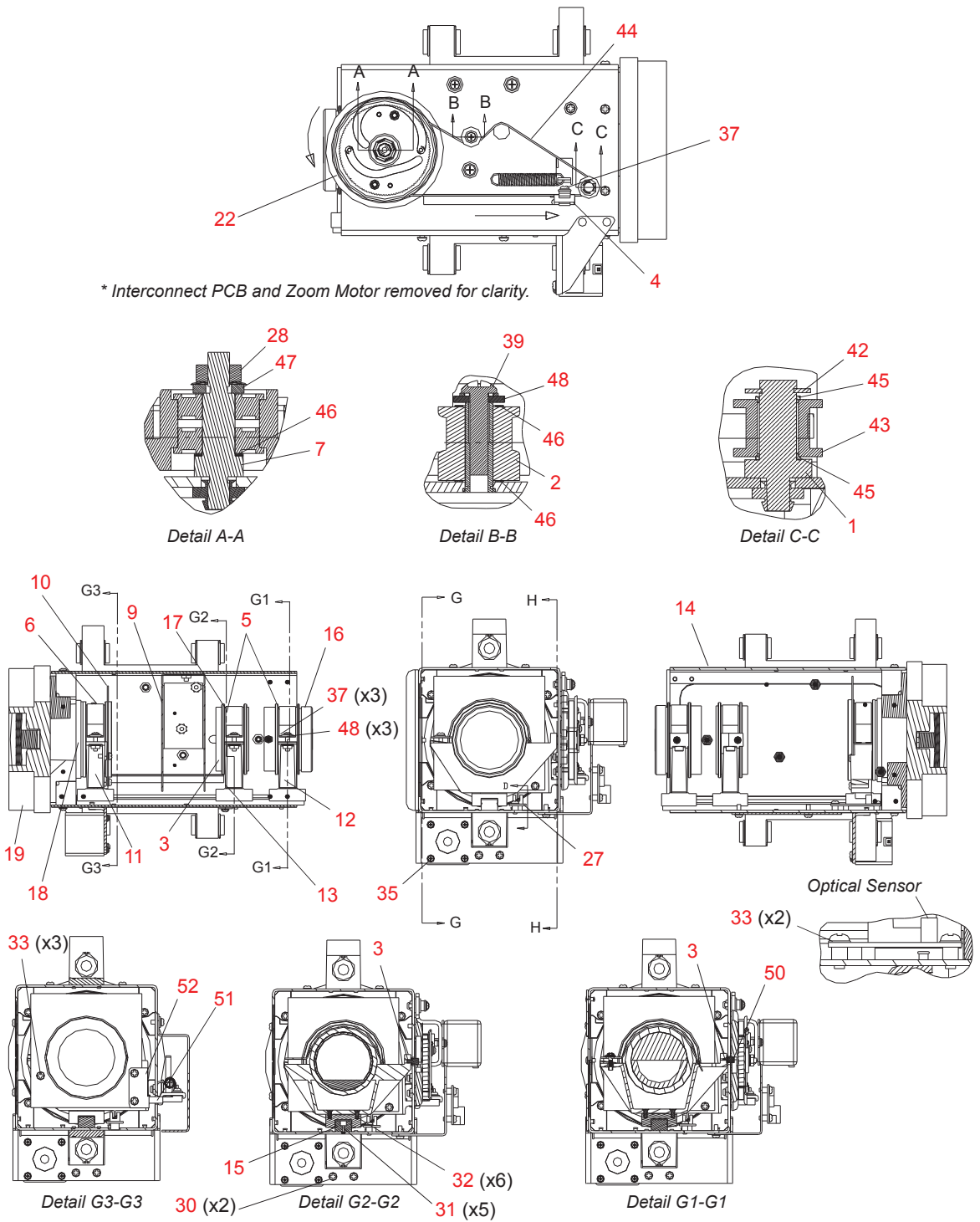


Figure 3-23: Spot Optic Assembly View 2

Zoom Box Assembly

21.9678.0110 Rev F

Refer to [Figure 3-24](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-------------------------------|
| 1 | 10.9678.0124 | 1 | EA | ZOOM BOX |
| 2 | 10.9678.0125 | 1 | EA | BRACE, FOCUS |
| 3 | 10.9678.0126 | 1 | EA | BRACE, REAR |
| 4 | 53.6530.0006 | 12 | EA | RIVET, 1/8"OD POP .188-.250GL |

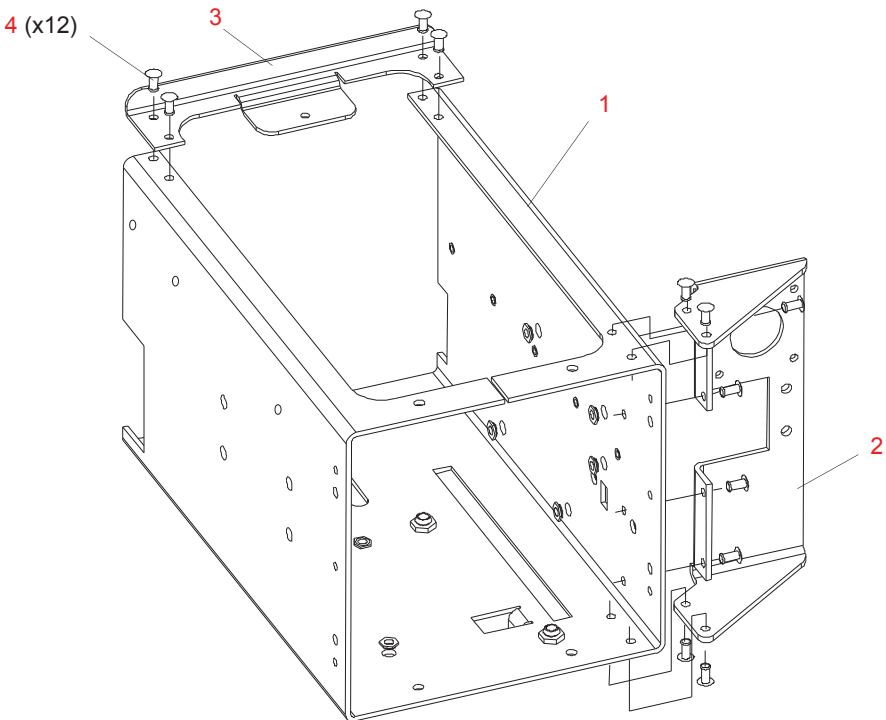


Figure 3-24: Zoom Box Assembly

Group 4 Lens Assembly

22.9678.0199 Rev 0

Refer to [Figure 3-25](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---------------------------------|
| 1 | 12.9678.0198 | 2 | EA | RING BLOCK, MACHINED G4 |
| 2 | 22.9678.0174 | 1 | EA | LENS ASSY, GROUP 4 |
| 3 | 53.6558.0001 | 4 | EA | SCREW, 6-32 X 3/8" PPZ |
| 4 | 55.3303.0006 | 4 | EA | WASHER, #6 LOCK INT.TOOTH SS |
| 5 | 55.6763.0500 | 4 | EA | PIN, DOWEL .5"LG .125"DIA 303SS |

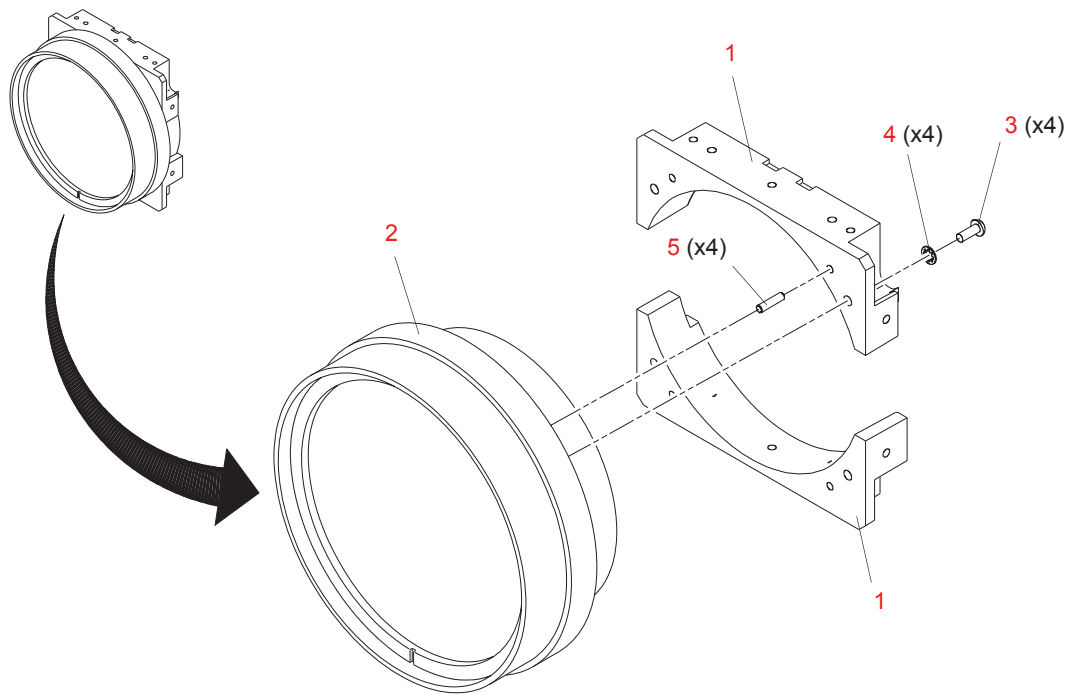


Figure 3-25: G4 Lens Mount Assembly

Right Edge Bearing Assembly

22.9678.1103 Rev C

Refer to [Figure 3-26](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 12.9678.1102 | 1 | EA | EDGE BEARING, MACHINED RIGHT |
| 2 | 54.2056.0001 | 4 | EA | RING, RETAINING EXTERNAL 19MM |
| 3 | 55.6776.0010 | 2 | EA | LINEAR BUSHING, 10MM STEEL W/PHENOLIC CAGE |

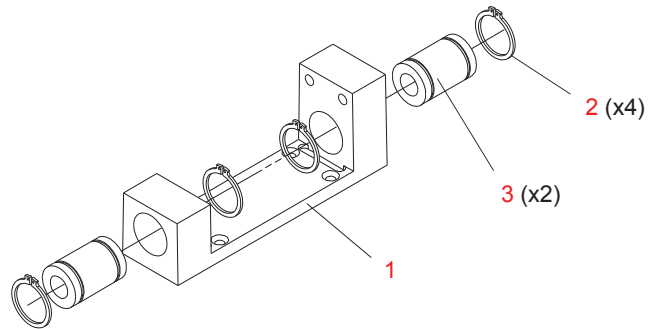


Figure 3-26: Right Edge Bearing Assembly

Left Edge Bearing Assembly

22.9678.1105 Rev C

Refer to [Figure 3-27](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 12.9678.1104 | 1 | EA | EDGE BEARING, MACHINE LEFT |
| 2 | 54.2056.0001 | 4 | EA | RING, RETAINING EXTERNAL 19MM |
| 3 | 55.6776.0010 | 2 | EA | LINEAR BUSHING, 10MM STEEL W/PHENOLIC CAGE |

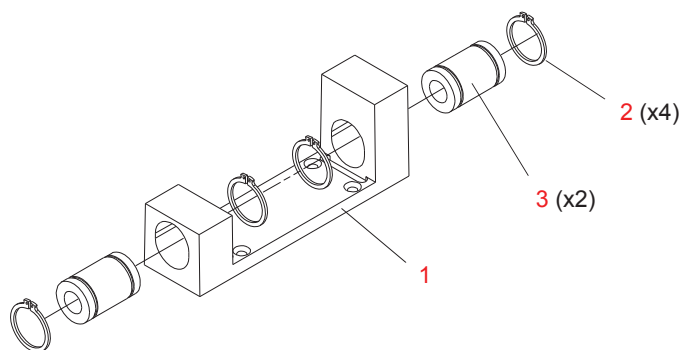


Figure 3-27: Left Edge Bearing Assembly

Zoom Cam Assembly

22.9678.1106 Rev B

Refer to [Figure 3-28](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.1107 | 1 | EA | ZOOM TIMING CAM |
| 2 | 10.9678.1108 | 1 | EA | PULLEY FLANGE |
| 3 | 10.9678.1118 | 1 | EA | TIMING PULLEY, ZOOM |
| 4 | 53.6613.0008 | 2 | EA | SCREW, 6-32 X 1/2" PPZ (changed 11-08-04) |
| 5 | 54.1259.0004 | 2 | EA | BEARING, RADIAL FLANGED .25"ID .625"OD (changed 06-25-03) |
| 6 | 55.6763.0500 | 2 | EA | PIN, DOWEL .5"LG .125"DIA 303SS |

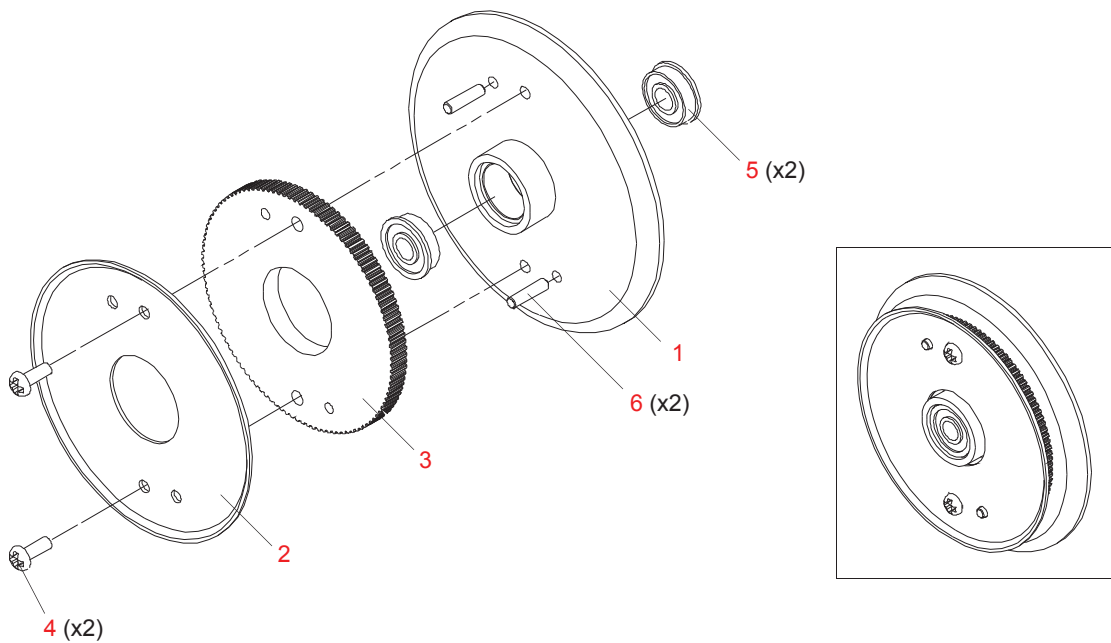


Figure 3-28: Zoom Cam Assembly

Zoom Motor Tensioning Assembly

22.9678.1113 Rev B

Refer to [Figure 3-29](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-------------------------------------|
| 1 | 10.9678.0338 | 1 | EA | PULLEY, ZOOM MOTOR |
| 2 | 10.9678.1111 | 1 | EA | BRACKET, ZOOM TENSION SHEETMETAL |
| 3 | 44.9663.1326 | 1 | EA | MOTOR, 17 .53" SHAFT 11.8MH 5.5 OHM |
| 4 | 53.5559.0250 | 2 | EA | SCREW, 6-32 X 1/4" SET CONE POINT |
| 5 | 53.6522.0001 | 2 | EA | SCREW, 6-32 X 1/4" PPZ |
| 6 | 55.3303.0006 | 2 | EA | WASHER, #6 LOCK INT.TOOTH SS |

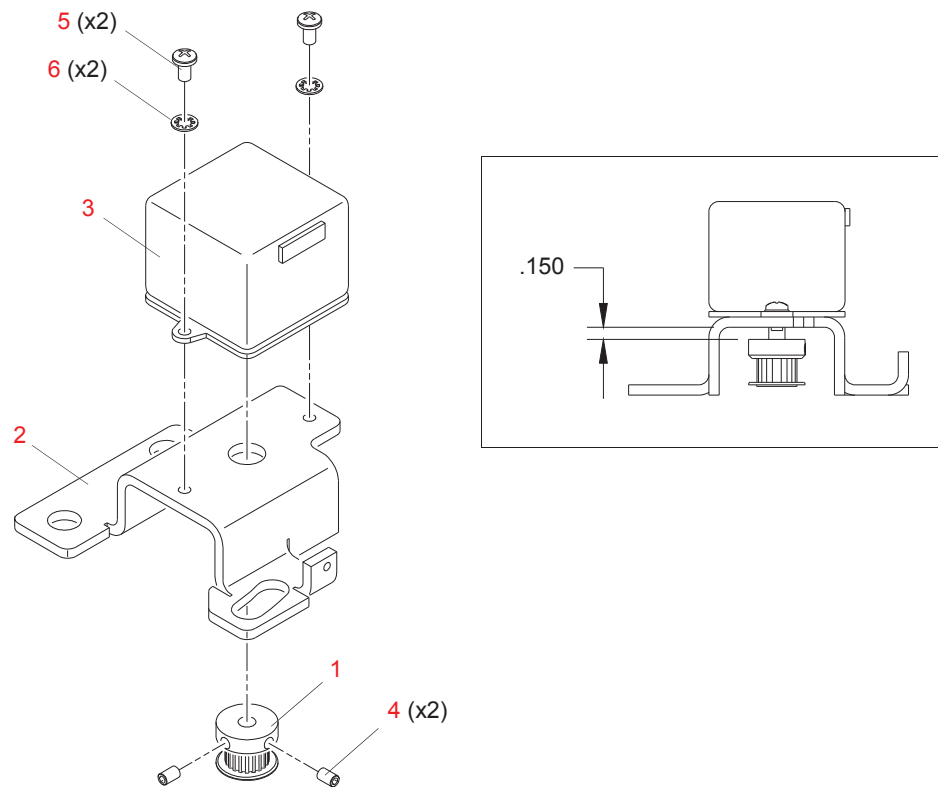


Figure 3-29: Zoom Motor Tensioning Assembly

Interconnect Light Shield Assembly

22.9678.1115 Rev D

Refer to [Figure 3-30](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 10.9678.1114 | 1 | EA | SHIELD, INTERCONNECT MOUNT/LIGHT |
| 2 | 24.9678.3116 | 1 | EA | PCB ASSY, ZOOM INTERCONNECT (changed 03-07-06) |
| 3 | 53.6558.0009 | 4 | EA | SCREW, 6-32 X 3/8" PPZ SEMS |

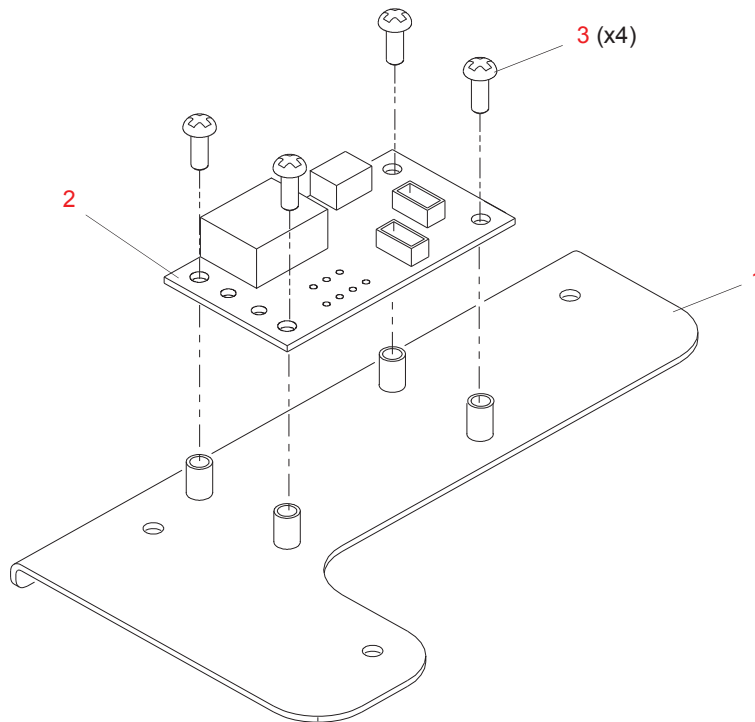


Figure 3-30: Interconnect Light Shield Assembly

Rod Clamp Assembly

22.9678.0149 Rev B

Refer to [Figure 3-31](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--------------------------------|
| 1 | 10.9678.0151 | 1 | EA | CLAMP, OPTIC ROD CAST |
| 2 | 53.6616.0001 | 2 | EA | SCREW, 6-32 X 3/4" PPZ |
| 3 | 55.6528.0001 | 2 | EA | WASHER, #6 FLAT ZINC |
| 4 | 55.6538.0001 | 2 | EA | WASHER, #6 LOCK INTERNAL TOOTH |
| 5 | 53.2008.0006 | 2 | EA | SPRING CLIP, 6-32 |

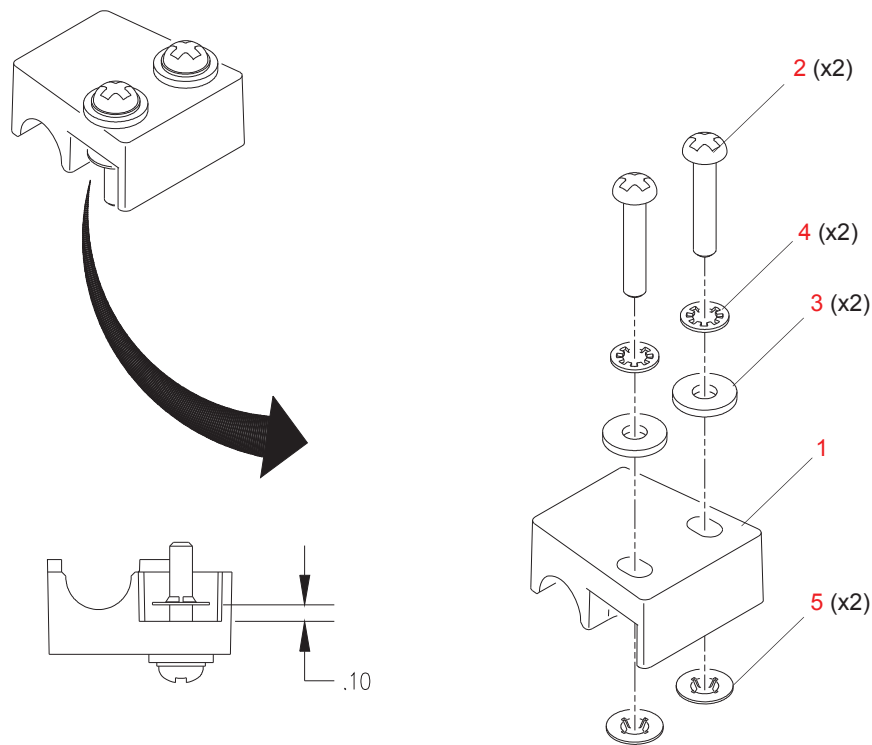


Figure 3-31: Rod Clamp Assembly

Color/Dimmer/Strobe Assembly

22.9678.0402 Rev F (VL3500)

22.9678.0462 Rev 0 (VL3500Q)

| No. | Item | Qty. | UM. | Description |
|-----|-----------------|------|-----|--|
| 1 | 10.9678.0324 | 1 | EA | PULLEY, FIXED COLOR WHEEL |
| 2 | 10.9678.0337 | 1 | EA | DRIVE PULLEY, FIXED COLOR WHEEL (changed 03-09-06) |
| 3 | 10.9678.0456 | 4 | EA | SHAFT, COLOR WHEEL |
| 4 | 10.9678.0457.07 | 1 | EA | SPACER, COLOR WHEEL L.357 (changed 07-22-04) |
| 5 | 10.9678.0457.02 | 2 | EA | SPACER, COLOR WHEEL L.190 |
| 6 | 10.9678.0457.03 | 3 | EA | SPACER, COLOR WHEEL L.123 |
| 7 | 10.9678.0457.04 | 3 | EA | SPACER, COLOR WHEEL L.031 |
| 8 | 10.9678.0469 | 1 | EA | REAR COLOR BULKHEAD |
| 9 | 10.9678.0485 | 5 | EA | PULLEY, COLOR MOTOR |
| 10 | 21.9678.0331 | 1 | EA | ASSY MOTOR/PLATE |
| 11 | 21.9678.0334 | 1 | EA | ASSY, FIXED COLOR WHEEL |
| 12 | 22.9678.0335 | 1 | EA | ASSY, BEARING BLOCK, FIXED WHEEL |
| | - 10.9678.0323 | 1 | EA | WHEEL MOUNT |
| | - 54.1259.0004 | 2 | EA | BEARING, RADIAL FLANGED 0.25"ID 0.625"OD (changed 6-25-03) |
| 13 | 22.9678.0403 | 1 | EA | ASSY, STROBE |
| | 22.9678.0463 | 1 | EA | ASSY, STROBE (VL3000 QUIET) |
| 14 | 22.9678.0435 | 1 | EA | ASSY, DIMMER WHEEL |
| 15 | 22.9678.0472 | 1 | EA | ASSY, CYAN WHEEL |
| 16 | 22.9678.0474 | 1 | EA | ASSY, YELLOW WHEEL |
| 17 | 22.9678.0476 | 1 | EA | ASSY, MAGENTA WHEEL |
| 18 | 22.9678.0478 | 1 | EA | ASSY, CTO WHEEL |
| 19 | 22.9678.0481 | 1 | EA | MOUNT ASSY, COLOR SENSE PCB #1 |
| 20 | 10.9678.0486 | 1 | EA | FRONT COLOR BULKHEAD |
| 21 | 22.9678.0489 | 1 | EA | ASSY, COLOR SENSE PCB #2 MOUNT |
| 22 | 24.9678.3240 | 1 | EA | PCB ASSY, WHEEL POSITION SENSOR (changed 02-14-05) |
| - | 25.9678.1409 | 1 | EA | PCB/CABLE ASSY, COLOR INTERCNT (not shown) (changed 06-28-06) |
| - | 25.9678.1419 | 1 | EA | PCB/CABLE ASSY, COLOR INTERCNT (not shown) (VL3500 QUIET) |
| 23 | 44.9678.0455 | 5 | EA | COLOR MOTOR |
| 24 | 53.2202.0008 | 1 | EA | NUT, 8-32 HEX SS, NYLON INSERT |
| 25 | 53.2200.0006 | 12 | EA | NUT, 6-32 KEPS SS |
| 26 | 53.5559.0250 | 12 | EA | SCREW, 6-32 X 1/4" SET CONE PO |

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| No. | Item | Qty. | UM. | Description |
|------------|-----------------|-------------|------------|--|
| 27 | 53.5638.0252 | 12 | EA | SCREW, 6-32 X 1/4"LG PFS UNDERCUT HEAD |
| 28 | 53.6558.0001 | 7 | EA | SCREW, 6-32 X 3/8" PPZ |
| 29 | 53.6597.0001 | 2 | EA | SCREW, 4-40 X 3/16" PPZ |
| 30 | 53.6608.0003 | 5 | EA | SCREW, 6-32 X 3/16"LG PPZ |
| 31 | 54.2036.0017 | 1 | EA | BELT, TIMING N=150 W=.125 URETHANE/KEVLAR |
| 32 | 54.2059.0001 | 4 | EA | TIMING BELT, MXL PITCH 150 TOOTH SI/KEVLAR |
| 33 | 54.2060.0001 | 1 | EA | BELT, TIMING MXL PITCH 165 TOOTH SI/KEVLAR |
| 34 | 55.2132.0011 | 4 | EA | STANDOFF, 1/4"HEX 6-32 X 1.093"L SS |
| 35 | 55.2132.0012 | 4 | EA | STANDOFF, 1/4"HEX 6-32 X 0.75"LG SS |
| 36 | 55.3303.0004 | 2 | EA | WASHER, #4 LOCK INT.TOOTH SS |
| 37 | 55.3303.0006 | 6 | EA | WASHER, #6 LOCK INT.TOOTH SS |
| 38 | 55.6503.0004 | 1 | EA | WASHER, #8 FLAT ZINC |
| 39 | 55.6528.0001 | 2 | EA | WASHER, #6 FLAT ZINC |
| 40 | 55.2110.0002 | 2 | EA | SPACER, 0.010 LG |
| - | 55.2186.0002 | 5 | EA | CABLE TIE, 0.09WD, 0.375 LG, TEFZEL (not shown) |
| 41 | 10.9678.0457.06 | 1 | EA | SPACER, COLOR WHEEL, 0.015 L |
| 42 | 55.6520.0001 | 2 | EA | WASHER, WAVE SPRING, 1/4" DIA (added 05-17-04) (VL3500 only) |

Color/Dimmer/Strobe Assembly (continued)

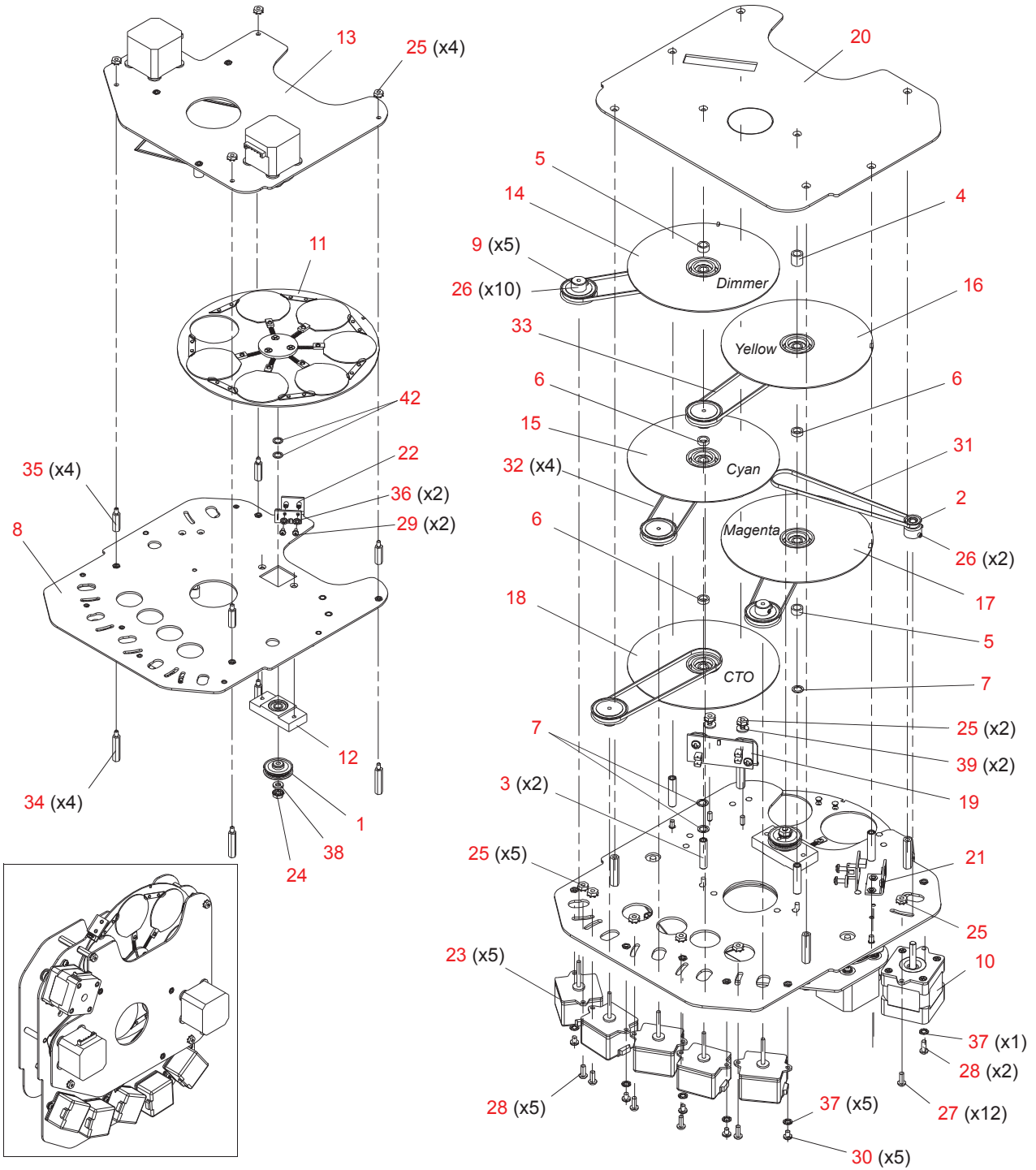


Figure 3-32: Color/Dimmer/Strobe Assembly

Motor/Adapter Plate Assembly

21.9678.0331 Rev 0

Refer to [Figure 3-33](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-------------------------------|
| 1 | 10.9678.0330 | 1 | EA | PLATE, MOTOR ADAPTER |
| 2 | 44.5031.0001 | 1 | EA | MOTOR, STEPPER 42MM X 40MM,10 |
| 3 | 53.6513.0002 | 4 | EA | SCREW, 3MM X 5MM LG PFZ METR |

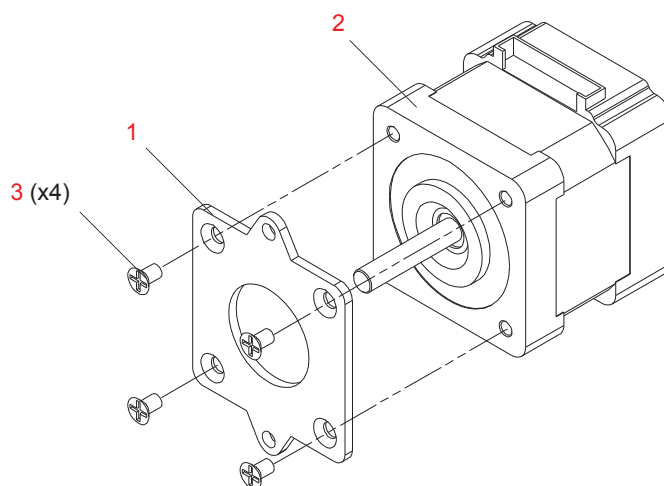


Figure 3-33: Motor/Adapter Plate Assembly

Fixed Color Wheel Assembly

21.9678.0334 Rev D

Refer to [Figure 3-34](#)

| No. | Item | Qty. | UM. | Description |
|-----|-----------------|------|-----|----------------------------------|
| 1 | 10.9678.0322 | 1 | EA | SPIN SHAFT, COLOR WHEEL |
| 2 | 10.9678.0332 | 6 | EA | SLIDING RETAINER |
| 3 | 10.9678.0333 | 6 | EA | RETAINER CLIP |
| 4 | 22.9678.1336 | 1 | EA | FAB ASSY, FIXED WHEEL/CLIP |
| 5 | 41.9678.0305.01 | 1 | EA | COLOR FILTER, DEEP RED VL3000 |
| 6 | 41.9678.0305.02 | 1 | EA | COLOR FILTER, KELLY GREEN VL3000 |
| 7 | 41.9678.0305.03 | 1 | EA | COLOR FILTER, CONGO BLUE VL3000 |
| 8 | 41.9678.0305.04 | 1 | EA | COLOR FILTER, MAGENTA VL3000 |
| 9 | 41.9678.0305.05 | 1 | EA | COLOR FILTER, ORANGE VL3000 |
| 10 | 41.9678.0305.06 | 1 | EA | COLOR FILTER, DARK FUSHIA VL3000 |
| 11 | 53.6534.0001 | 6 | EA | RIVET, 3/32"OD POP 3/32GRIP R |
| 12 | 53.6608.1857 | 3 | EA | SCREW, 6-32 X 3/16"LG PFSS |
| 13 | 55.2256.0001 | 1 | EA | MAGNET, 2:17 SMCO 2MM X 2MM |
| 14 | 55.6568.0076 | 6 | EA | SPRING, CPRSN .120"OD.750"LG |
| 15 | 10.9678.0250 | 1 | EA | MAGNET TAPE |

Fixed Color Wheel Assembly (continued)

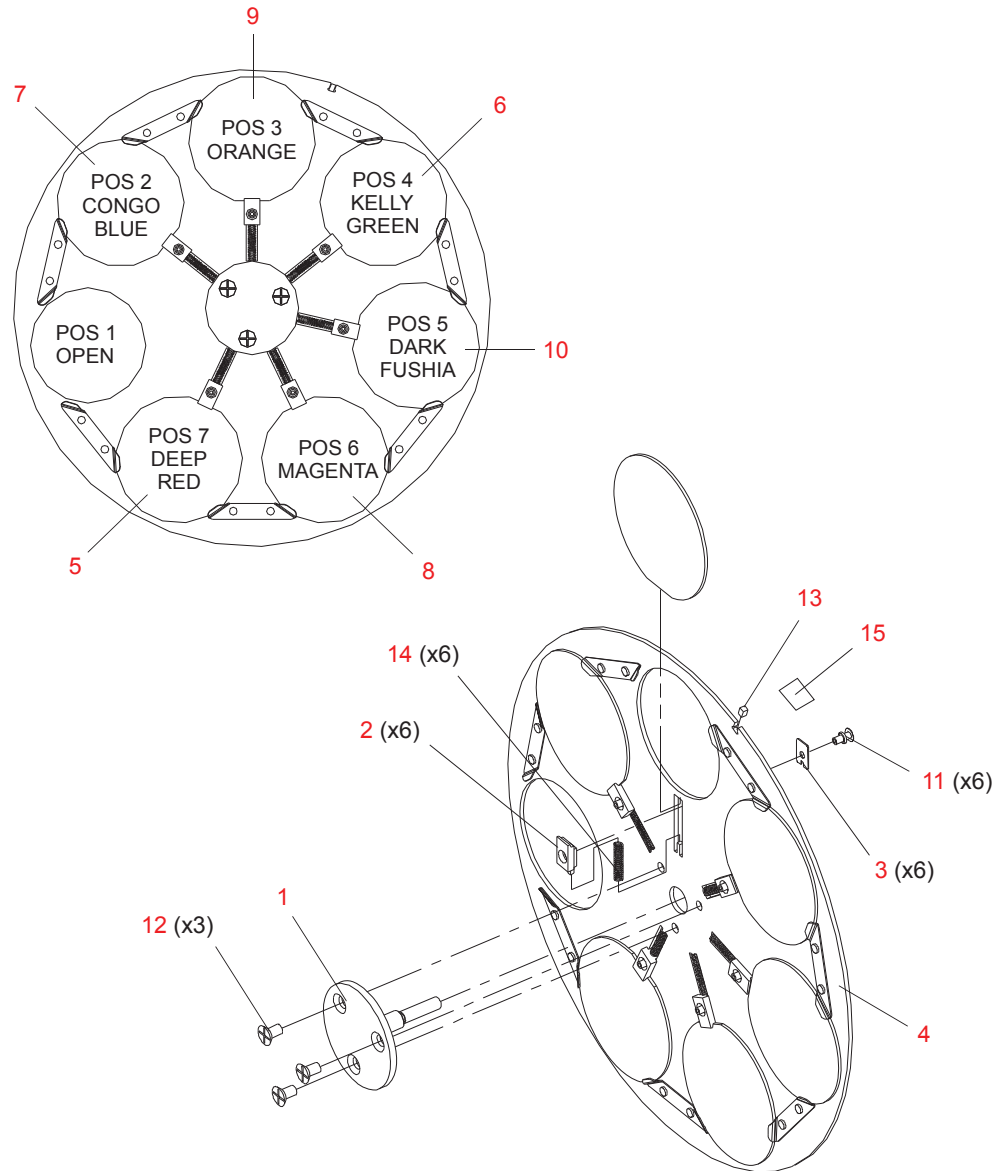


Figure 3-34: Fixed Color Wheel Assembly

Strobe Assembly

22.9678.0403 Rev F (VL3500 Only)

Refer to Figure 3-35

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|--|
| 1 | 10.9678.0491 | 4 | EA | BUMPER STOP, STROBE |
| 2 | 10.9678.0465 | 1 | EA | STROBE BULKHEAD |
| 3 | 22.9678.0467 | 1 | EA | ASSY, RIGHT STROBE BLADE |
| 4 | 22.9678.0468 | 1 | EA | ASSY, LEFT STROBE BLADE |
| 5 | 44.5029.0001 | 2 | EA | MOTOR, STEPPER 42MM X 34MM - AR |
| 6 | 53.6513.0032 | 8 | EA | SCREW, M3X10MM SEMS PPZ EXT TO |
| 7 | 53.6609.0500 | 4 | EA | SCREW, 6-32 X 1/2" LG PFZ |
| 8 | 55.6659.0001 | 8 | EA | SPACER, 1/4" OD X 3/16" L X #4 HOLE |
| 9 | 55.3306.0006 | 8 | EA | WASHER, .375 OD .149 ID .025 THK SS |
| 10 | 55.6706.0001 | 8 | EA | GROMMET, 9/16" OD, 9/32" ID 1/4 T SILICONE RED |

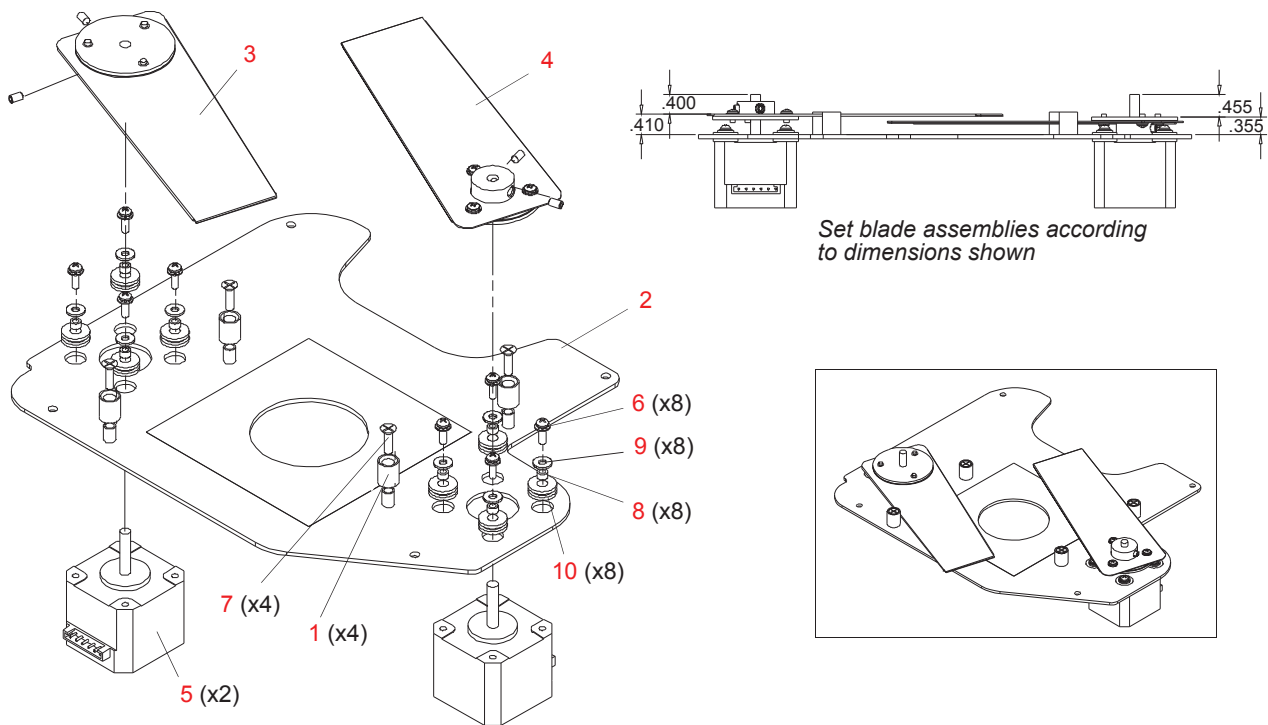


Figure 3-35: Strobe Assembly - VL3500 Only

Strobe (Quiet) Assembly

22.9678.0463 Rev B (VL3500Q Only)

Refer to [Figure 3-36](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|---|
| 1 | 10.9678.0491 | 4 | EA | BUMPER STOP, STROBE |
| 2 | 10.9678.0465 | 1 | EA | STROBE BULKHEAD |
| 3 | 22.9678.0467 | 1 | EA | ASSEMBLY, RIGHT STROBE BLADE |
| 4 | 22.9678.0468 | 1 | EA | ASSEMBLY, LEFT STROBE BLADE |
| 5 | 23.9678.0499 | 2 | EA | ASSEMBLY, STROBE MOTOR, VL3000Q |
| 6 | 53.6520.0001 | 8 | EA | SCREW, #4-40 X 3/8 PPZ |
| 7 | 53.6609.0500 | 4 | EA | SCREW, 6-32 X 1/2" LG PFZ |
| 8 | 55.3306.0006 | 8 | EA | WASHER, .375 OD .149 ID .025 THK SS |
| 9 | 55.6537.0001 | 8 | EA | WASHER, #4 INTERNAL LOCK TOOTH |
| 10 | 55.6659.0001 | 8 | EA | SPACER, 1/4" RND 4 THRU 3/16" AL |
| 11 | 55.6706.0001 | 8 | EA | GROMMET, 9/32" ID, 9/16" OD, 1/4TH SILICONE |

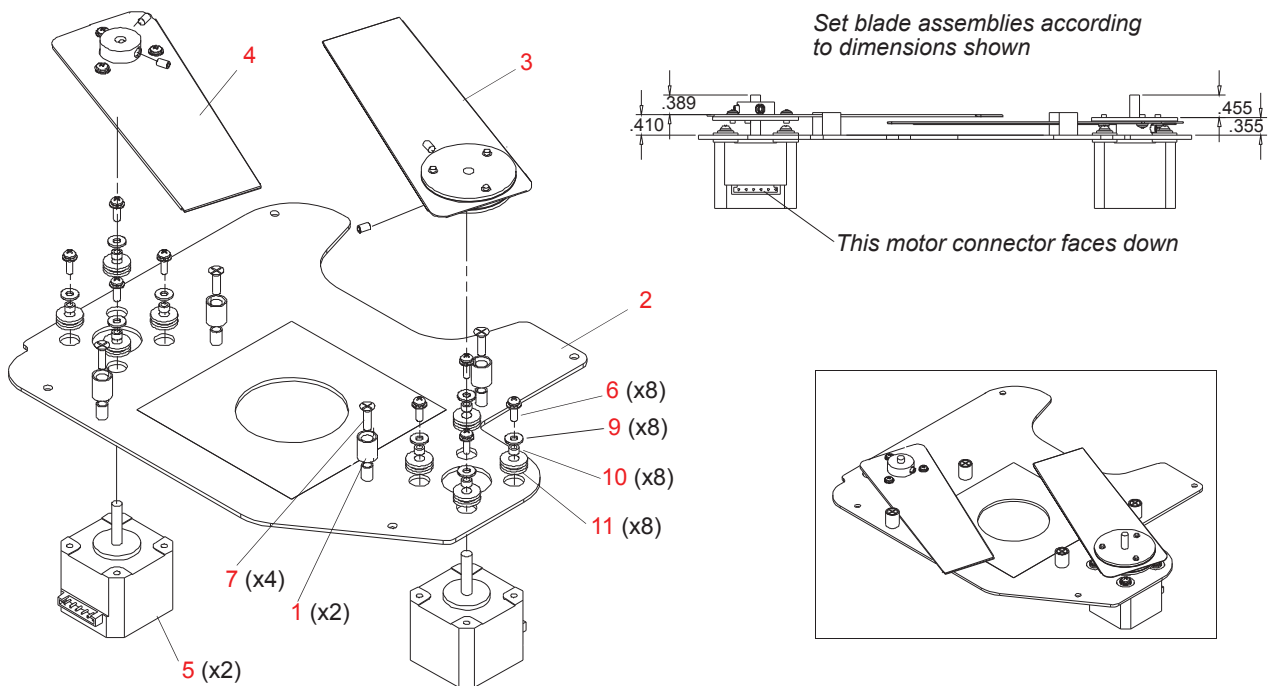


Figure 3-36: Strobe (Quiet) Assembly - VL3500Q Only

Right Strobe Blade Assembly

22.9678.0467 Rev C

Refer to [Figure 3-37](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-----------------------------------|
| 1 | 10.9678.0464 | 1 | EA | STROBE BLADE |
| 2 | 10.9678.0432 | 1 | EA | HUB, STROBE BLADE |
| 3 | 10.9678.0466 | 1 | EA | STROBE BLADE, DAMPER |
| 4 | 53.5559.0250 | 2 | EA | SCREW, 6-32 X 1/4" SET CONE POINT |
| 5 | 53.6597.0001 | 3 | EA | SCREW, 4-40 X 3/16" PPZ |
| 6 | 55.3303.0004 | 3 | EA | WASHER, #4 LOCK INT. TOOTH SS |

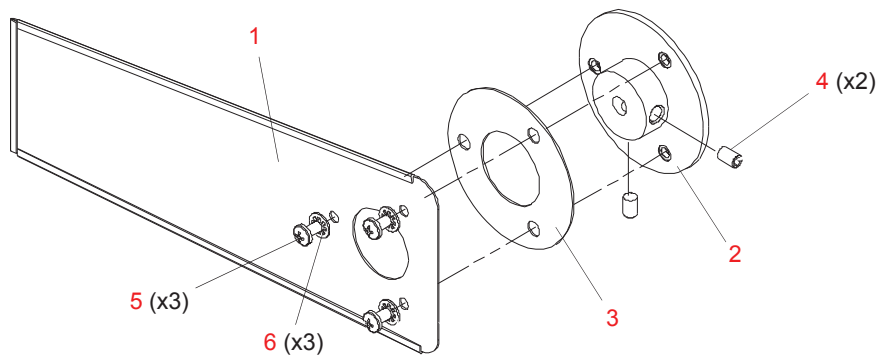


Figure 3-37: Right Strobe Blade Assembly

Left Strobe Blade Assembly

22.9678.0468 Rev C

Refer to [Figure 3-38](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-----------------------------------|
| 1 | 10.9678.0464 | 1 | EA | STROBE BLADE |
| 2 | 10.9678.0432 | 1 | EA | HUB, STROBE BLADE |
| 3 | 10.9678.0466 | 1 | EA | STROBE BLADE, DAMPER |
| 4 | 53.5559.0250 | 2 | EA | SCREW, 6-32 X 1/4" SET CONE POINT |
| 5 | 53.6597.0001 | 3 | EA | SCREW, 4-40 X 3/16" PPZ |
| 6 | 55.3303.0004 | 3 | EA | WASHER, #4 LOCK INT. TOOTH SS |

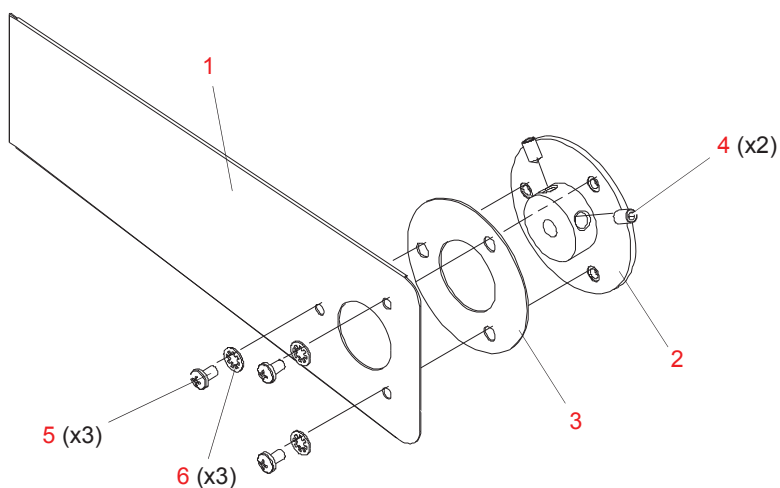


Figure 3-38: Left Strobe Blade Assembly

Strobe Motor (Quiet) Assembly

23.9678.0499 Rev A (VL3500Q Only)

Refer to [Figure 3-39](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|----------------------------------|
| 1 | 44.5035.0001 | 1 | EA | STEPPER MOTOR, 2 PHASE, PK |
| 2 | 52.6524.0004 | 1 | EA | CONNECTOR, HOUSING, 4 POS RECEPT |
| 3 | 55.8346.0001 | 4 | EA | CONTACT, 24-30 AWG FEMALE CRIMP |
| 4 | 55.2200.0003 | 0.25 | FT | HEATSHRINK, 3/16" VITON |

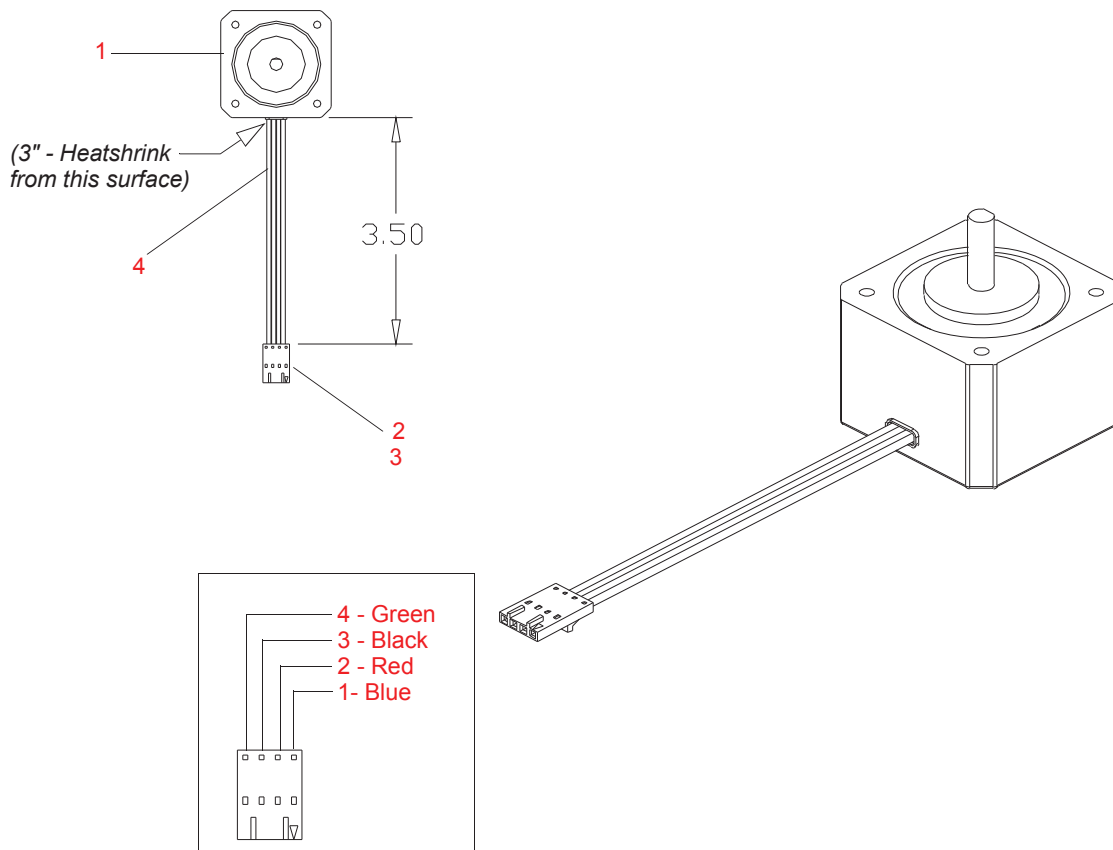


Figure 3-39: Strobe Motor (Quiet) Assembly - VL3500Q Only

Dimmer Wheel Assembly

22.9678.0435 Rev D

Refer to [Figure 3-40](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 22.9678.0420 | 1 | EA | PULLEY ASSY, WITH BEARING |
| 2 | 41.9678.0494 | 1 | EA | GLASS, COATED DIMMER WHEEL (changed on 01-23-04) |
| 3 | 55.2256.0001 | 1 | EA | MAGNET, 2:17 SMCO 2MM X 2MM |

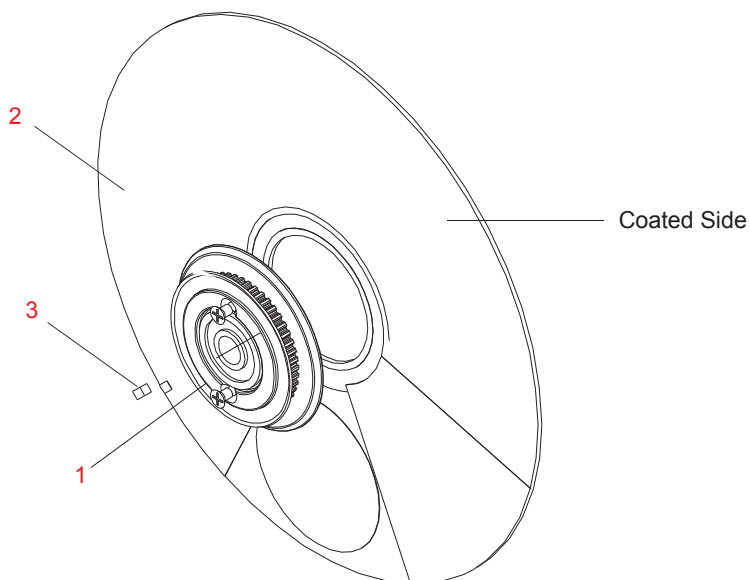


Figure 3-40: Dimmer Wheel Assembly

Cyan Wheel Assembly

22.9678.0472 Rev C

Refer to [Figure 3-41](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---------------------------|
| 1 | 22.9678.0420 | 1 | EA | PULLEY ASSY, WITH BEARING |
| 2 | 41.9678.0471 | 1 | EA | GLASS, CYAN COLOR WHEEL |

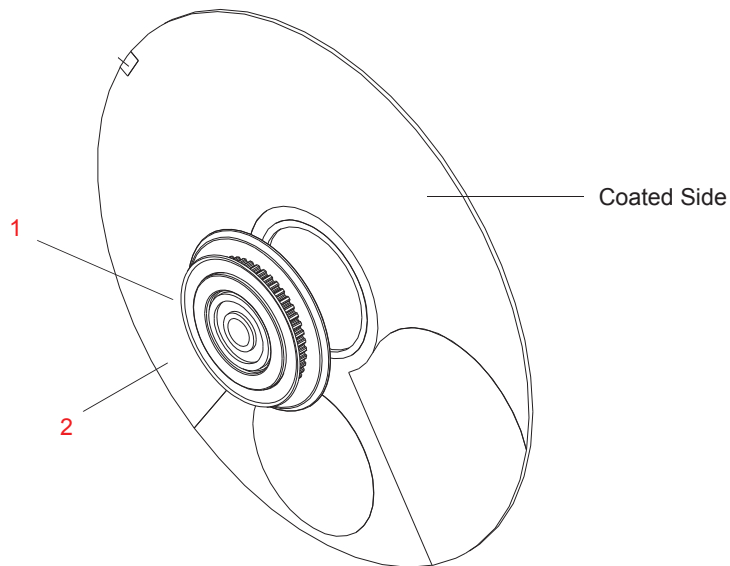


Figure 3-41: Cyan Wheel Assembly

Yellow Wheel Assembly

22.9678.0474 Rev B

Refer to [Figure 3-42](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---------------------------|
| 1 | 22.9678.0420 | 1 | EA | PULLEY ASSY, WITH BEARING |
| 2 | 41.9678.0473 | 1 | EA | GLASS, YELLOW COLOR WHEEL |

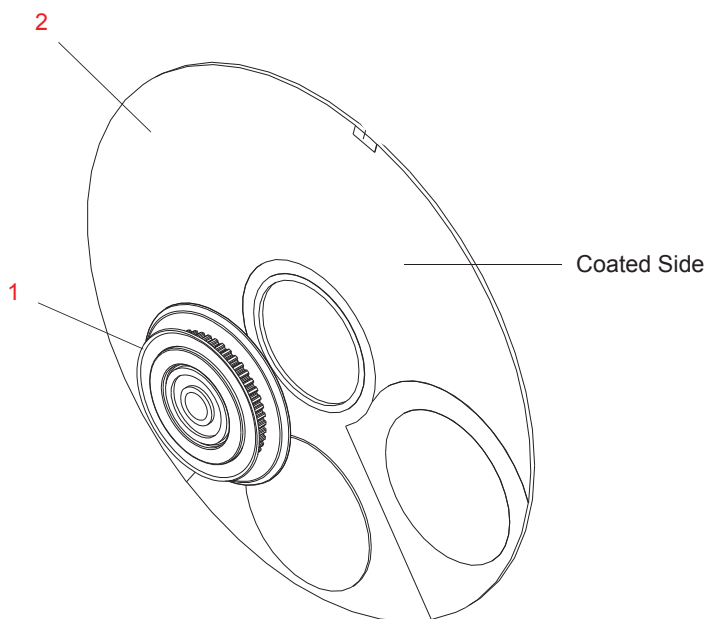


Figure 3-42: Yellow Wheel Assembly

Magenta Wheel Assembly

22.9678.0476 Rev B

Refer to [Figure 3-43](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|----------------------------|
| 1 | 22.9678.0420 | 1 | EA | PULLEY ASSY, WITH BEARING |
| 2 | 41.9678.0475 | 1 | EA | GLASS, MAGENTA COLOR WHEEL |

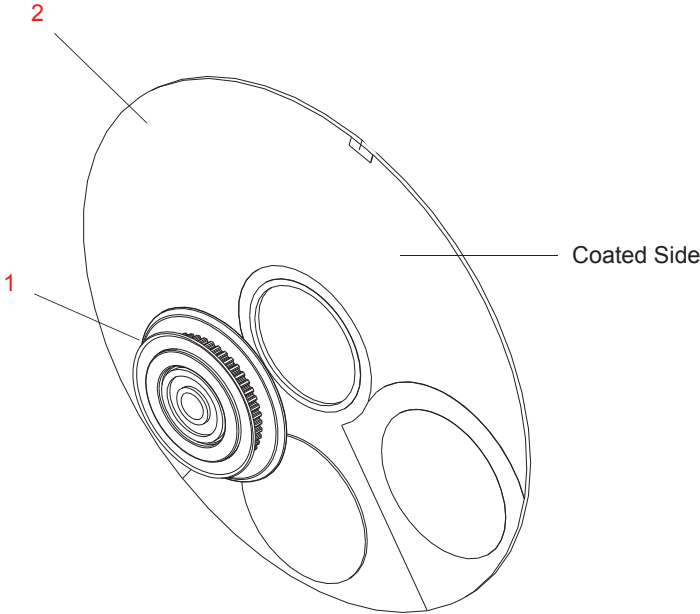


Figure 3-43: Magenta Wheel Assembly

CTO Wheel Assembly

22.9678.0478 Rev B

Refer to [Figure 3-44](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---------------------------|
| 1 | 22.9678.0420 | 1 | EA | PULLEY ASSY, WITH BEARING |
| 2 | 41.9678.0477 | 1 | EA | GLASS, COATED CTO |

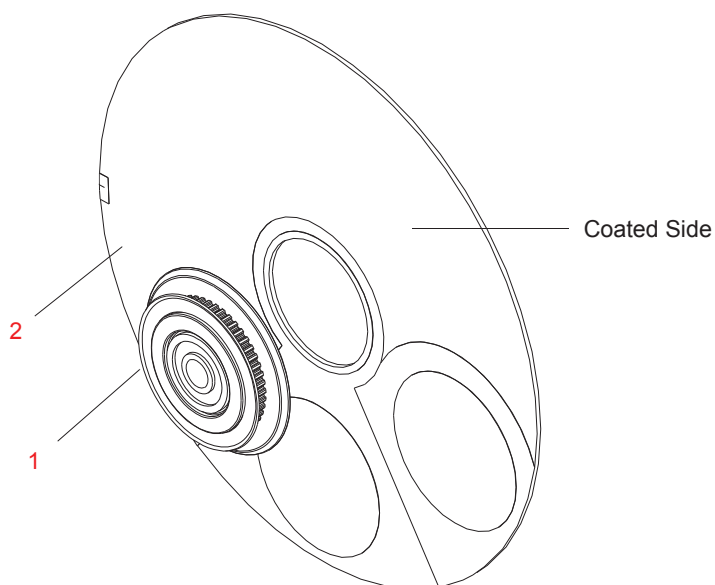


Figure 3-44: CTO Wheel Assembly

Gobo Clamp Assembly

22.9678.0693 Rev A

Refer to [Figure 3-45](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 12.9678.0691 | 1 | EA | GOBO CLAMP |
| 2 | 53.6685.0625 | 2 | EA | SCREW, CAPTIVE PANEL, 6-32 X .625"LG PPS ZINC PLATED |
| 3 | 55.6538.0001 | 3 | EA | WASHER, #6 LOCK INTERNAL TOOTH |
| 4 | 53.6613.1126 | 1 | EA | SCREW, 6-32 X 1.125 LG PPZ |

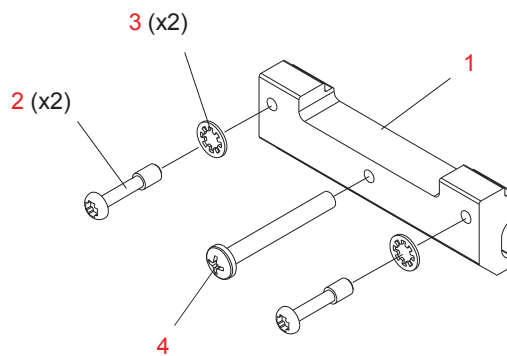


Figure 3-45: Gobo Clamp Assembly

Color Clamp Assembly

22.9678.0694 Rev A

Refer to [Figure 3-46](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 12.9678.0692 | 1 | EA | COLOR CLAMP |
| 2 | 53.6685.0625 | 2 | EA | SCREW, CAPTIVE PANEL, 6-32 X .625"LG PPS ZINC PLATED |
| 3 | 55.6538.0001 | 2 | EA | WASHER, #6 LOCK INTERNAL TOOTH |
| 4 | 53.6613.1126 | 1 | EA | SCREW, 6-32 X 1.125 LG PPZ |

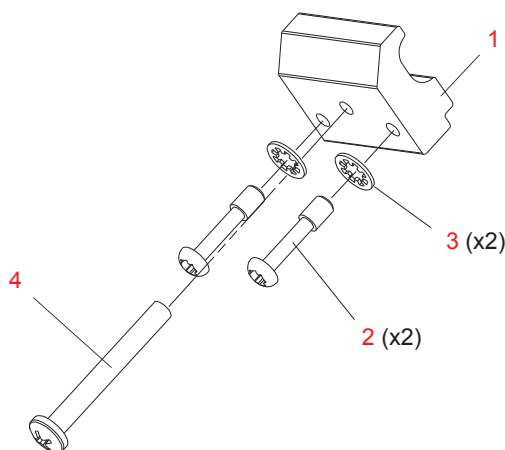


Figure 3-46: Color Clamp Assembly

Edge Lead Screw Assembly

22.9678.1126 Rev B

Refer to [Figure 3-47](#)

| No. | Item | Qty. | UM. | Description |
|-----|---------------|------|-----|----------------------------------|
| 1 | 10.9678.1119 | 1 | EA | LEAD SCREW, EDGE |
| 2 | 55..6616.0007 | 1 | EA | STANDOFF, 3/8" HEX THRD .562" LG |

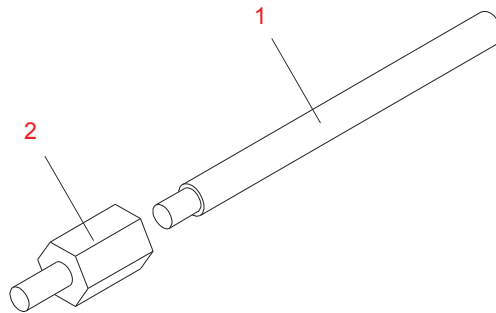


Figure 3-47: Edge Lead Screw Assembly

Notes

Yoke Assembly

Yoke Assembly

21.9678.0700 Rev J (VL3500)

21.9678.0701 Rev B (VL3500Q)

Refer to [Figure 3-48](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.0764 | 1 | EA | PLATE, TILT ENCODER MOUNT |
| 2 | 10.9678.0756 | 1 | EA | IGNITOR SHIELD |
| 3 | 21.9678.0765 | 1 | EA | ASSY, TILT MOTOR |
| | 21.9678.8765 | 1 | EA | ASSY, TILT MOTOR |
| 4 | 22.9661.0609 | 2 | EA | ASSY, YOKE FAN |
| | 22.9678.0609 | 2 | EA | ASSY, YOKE FAN, VL3500 QUIET |
| 5 | 22.9686.0705 | 1 | EA | ASSY, YOKE STRUCTURE |
| 6 | 23.9650.3327 | 1 | EA | ELEC ASSY, RELAY |
| 7 | 23.9661.1253 | 1 | EA | ELEC ASSY, TILT EOT SENSOR |
| 8 | 24.9661.3126 | 1 | EA | PCB ASSY, SOLID STATE IGNITOR |
| - | 25.9661.1526 | 2 | EA | CABLE ASSY, IGNITOR TO RELAY (NOT SHOWN) |
| - | 25.9678.0681 | 1 | EA | CABLE ASSY, YOKE FAN AND RELAY (NOT SHOWN) |
| - | 25.9678.0781 | 1 | EA | CABLE ASSY, YOKE FAN AND RELAY, VL3500 QUIET (NOT SHOWN) |
| - | 25.9678.0758 | 1 | EA | CABLE ASSY, YOKE FAN (NOT SHOWN) |
| - | 25.9678.0759 | 1 | EA | CABLE ASSY, YOKE FAN, VL3500 QUIET (NOT SHOWN) |
| 9 | 53.2019.0004 | 2 | EA | NUT, 3/8-16 X 7/32" THK HEX |
| 10 | 53.2200.0006 | 1 | EA | NUT, 6-32 KEPS SS |
| 11 | 53.5634.0250 | 8 | EA | SCREW, 4-40 X 1/4" PFSS BL |
| 12 | 53.6539.0001 | 2 | EA | WASHER, 3/8" SPLIT LOCK |
| 13 | 53.6558.0009 | 12 | EA | SCREW, 6-32 X 3/8"LG PPZ SEM |
| 14 | 53.6626.0001 | 6 | EA | SCREW, 10-32 X 1/2" PPZ |
| 15 | 53.6634.0003 | 2 | EA | SCREW, 3/8-16 X 1/2"LG SOC |
| 16 | 55.2150.0002 | 1 | EA | STANDOFF, 1/4" HEX 6-32 1.187"L |
| 17 | 55.2178.0001 | 1 | EA | CABLE ANCHOR MOUNT, #8 SCREW MOUNT |
| 18 | 55.6528.0001 | 2 | EA | WASHER, #6 FLAT ZINC |
| 19 | 55.6541.0002 | 2 | EA | GROMMET, 1 "ID 1 3/4"OD 1 3/8 GROOVE DIA |
| 20 | 55.6568.0074 | 2 | EA | SPRING, CPRSN .420"OD .750"LG |
| 21 | 55.6658.0004 | 2 | EA | STANDOFF, 1/4" HEX 6-32 .750"LG, F-F, AL (changed 05-27-03) |

Yoke Assembly (cont.)

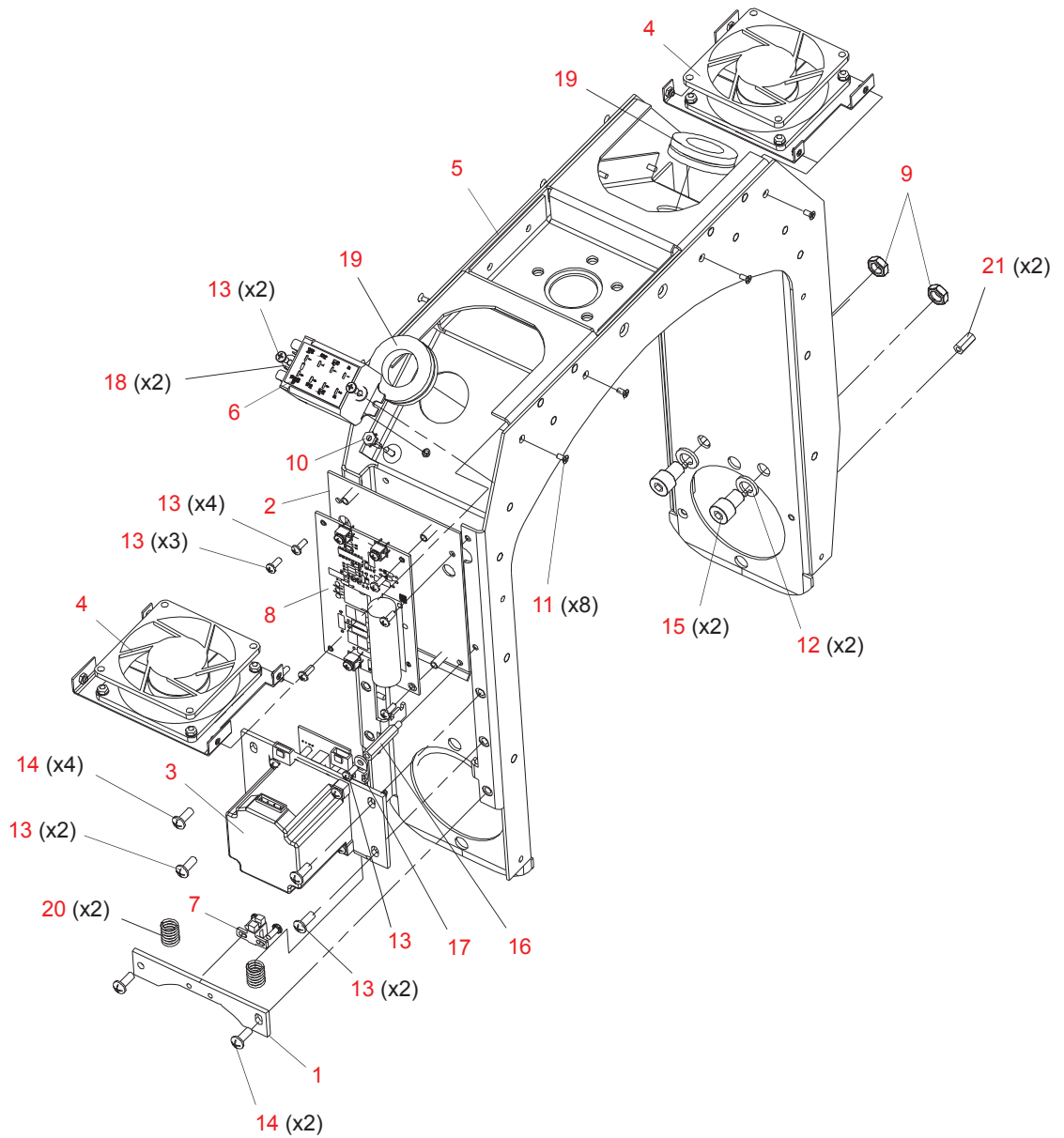


Figure 3-48: Yoke Assembly

Tilt Motor Assembly

21.9678.0765 Rev E (VL3500)

21.9678.6865 Rev 0 (VL3500 Quiet)

Refer to [Figure 3-49](#)

| No. | Item | Qty. | UM. | Description |
|-----|----------------|------|-----|--|
| 1 | 10.9678.0763 | 1 | EA | PLATE, TILT MOTOR MOUNT |
| | 10.9678.8763 | 1 | EA | PLATE, TILT MOTOR MOUNT (VL3500 QUIET) |
| 2 | 21.9678.0708 | 1 | EA | ASSY, DRIVE PULLEY |
| | - 10.9678.8720 | 1 | EA | CODEWHEEL, 120 COUNT LARGE ID (changed 10-05-06) |
| | - 10.9678.0749 | 1 | EA | TIMING PULLEY, 2MM GT 17 TOOTH |
| | - 53.5560.0250 | 2 | EA | SCREW, 8-32 X 1/4" SET CONE POINT |
| 3 | 24.9661.9629 | 1 | EA | PCB ASSY, PAN/TILT ENCODER (changed 02-22-06) |
| | 24.9661.8629 | 1 | EA | PCB ASSY, PAN/TILT ENCODER (changed 02-22-06) (VL3500 QUIET) |
| 4 | 44.9678.0680 | 1 | EA | MOTOR, 3 PHASE SIZE 23 HIGH TORQUE |
| 5 | 53.2200.0006 | 2 | EA | NUT, 6-32 KEPS SS |
| 6 | 53.2200.0008 | 4 | EA | NUT, 8-32 KEPS SS |
| 7 | 53.6525.0001 | 2 | EA | SCREW, 6-32 X 5/16" PPZ |
| 8 | 53.6546.0001 | 4 | EA | SCREW, 8-32 X 5/8" PPB |
| 9 | 53.6682.0002 | 2 | EA | SCREW, 4-40 X 1/4"LG PPZ SEMS-EXT |

Note: Vari-Lite recommends that this motor be replaced as a complete assembly. Although you can replace only the motor, the pulley (Item 2) is bonded to the motor shaft during assembly and cannot be removed intact. If you order a replacement motor (Item 4), also order the pulley (Item 2). Contact Vari-Lite Customer Service for installation information.

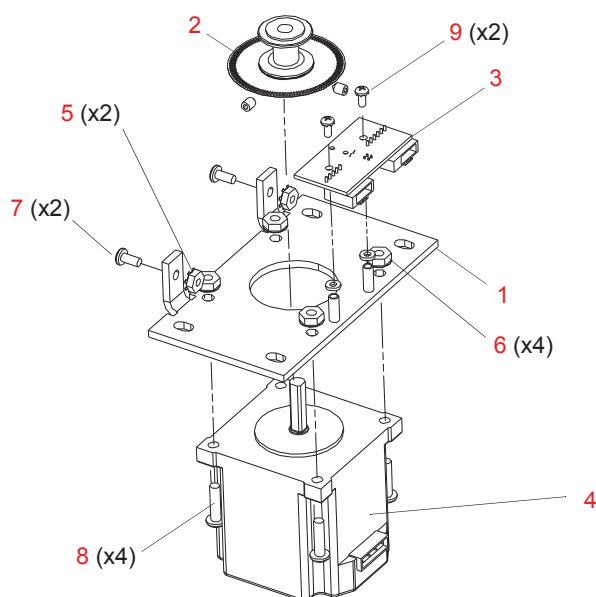


Figure 3-49: Tilt Motor Assembly

Relay Electrical Assembly

23.9650.3327 Rev B

Refer to [Figure 3-50](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 04.9650.0044 | 1 | EA | LABEL, RELAY WIRING -VL7 |
| 2 | 52.8271.0005 | 2 | EA | RECEPT, FASTON 1/4" 16-14 AWG INSULATED |
| 3 | 66.4510.0002 | 1 | EA | RELAY, 20A 250VAC DPDT UL/CSA |
| 4 | 82.4307.4002 | 1 | EA | DIODE, 1N4002 RECTIFIER 100V 1A |

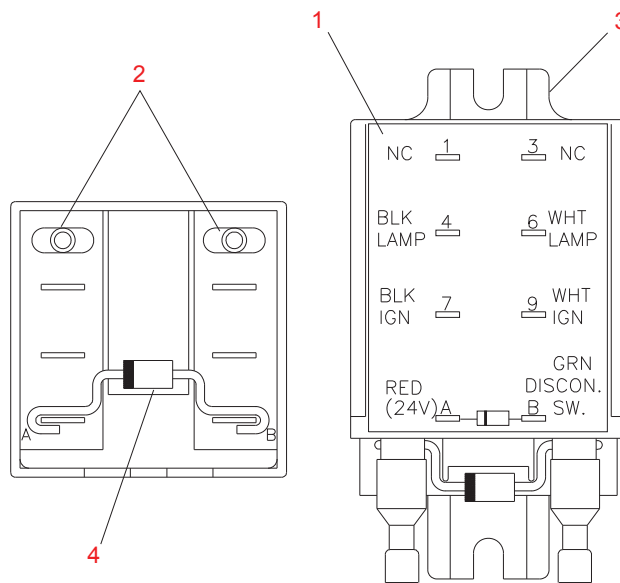


Figure 3-50: Relay Electrical Assembly

Yoke Fan Assembly

22.9661.0609 Rev C (VL3500)

22.9678.0609 Rev A (VL3500Q)

Refer to Figure 3-51

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 10.9661.0646 | 1 | EA | FAN TRAY |
| 2 | 40.7113.0001 | 1 | EA | FAN, +24V 80 X 80 X 25MM, 32CFM |
| 3 | 53.2200.0006 | 1 | EA | NUT, 6-32 KEPS SS |
| 4 | 55.2179.0003 | 1 | EA | CABLE SADDLE, .75 X .75 4WAY, VL3500 QUIET (NOT SHOWN) |
| 5 | 55.2186.0001 | 1 | EA | CABLE TIE, .10 WD X 4" LG, VL3500 QUIET (NOT SHOWN) |

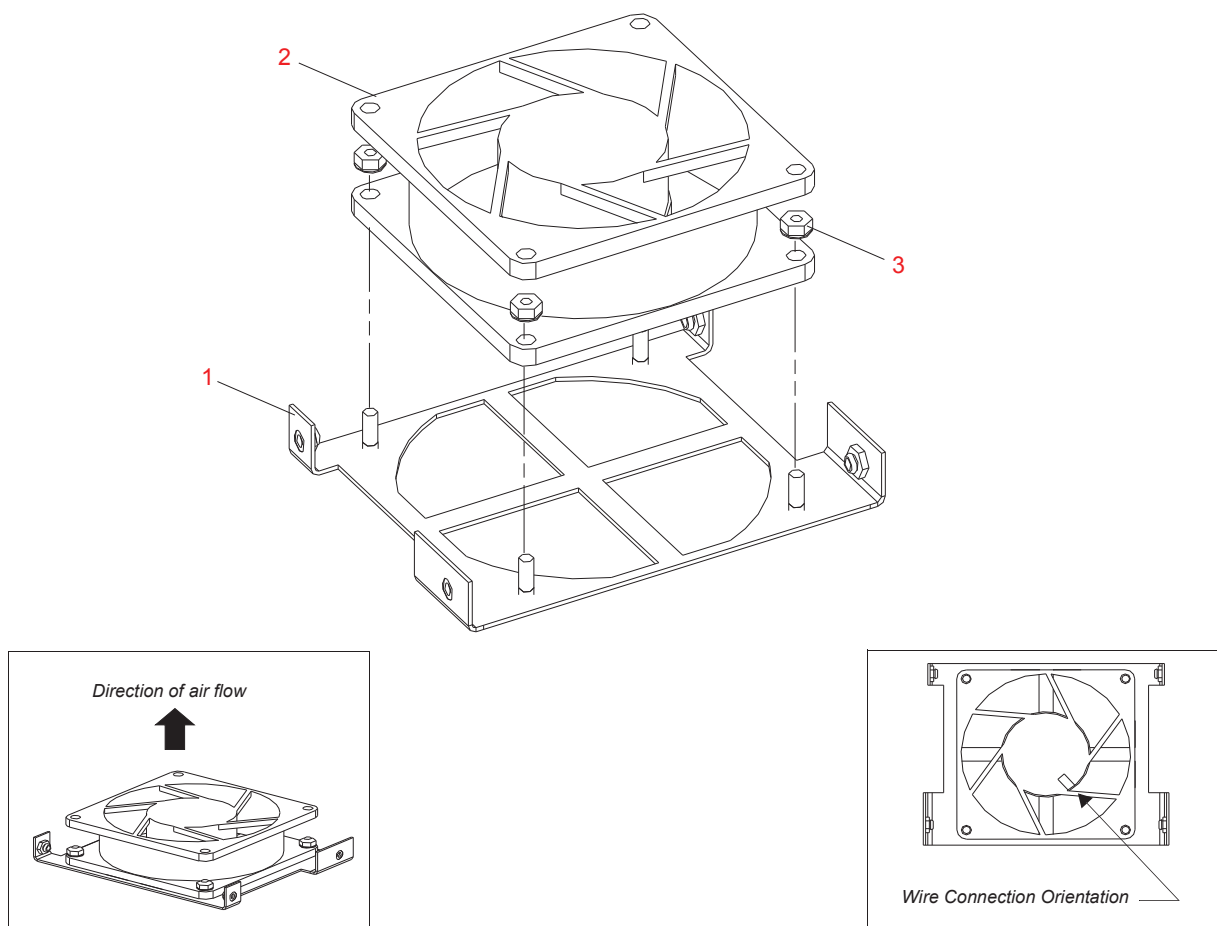


Figure 3-51: Yoke Fan Assembly

Notes

Head/Yoke PCB Assemblies

Shutter Cable Interconnect Assembly

21.9678.1246 Rev A

Refer to [Figure 3-52](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|------------------------------------|
| 1 | 10.9678.1245 | 1 | EA | MOUNT, CABLE INTERCONNECT, SHUTTER |
| 2 | 52.6670.0034 | 1 | EA | HEADER, MOD II, 34 PIN, DUAL SIDED |
| 3 | 52.6670.0040 | 1 | EA | HEADER, MOD II, 40 PIN, DUAL SIDED |
| 4 | 53.6520.0002 | 4 | EA | SCREW, 4-40 X 7/16" PPZ |
| 5 | 55.6621.0001 | 4 | EA | WASHER, #4 FLAT ZINC |

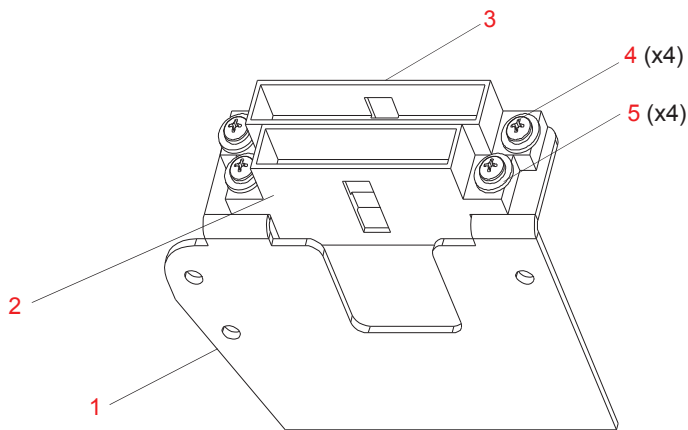


Figure 3-52: Shutter Cable Interconnect Assembly

Color Sensor PCB #1 Mount Assembly

22.9678.0481 Rev B

Refer to [Figure 3-53](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|------------------------------|
| 1 | 10.9678.0482 | 1 | EA | PCB MOUNT, COLOR SENSOR #1 |
| 2 | 24.9678.3480 | 1 | EA | PCB ASSY, COLOR SENSOR #1 |
| 3 | 53.6558.0001 | 2 | EA | SCREW, 6-32 X 3/8" PPZ |
| 4 | 55.3303.0006 | 2 | EA | WASHER, #6 LOCK INT.Tooth SS |

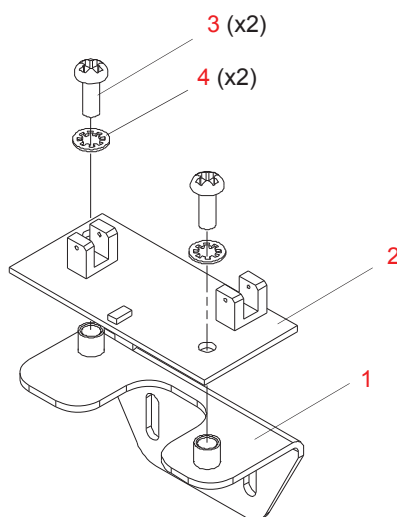


Figure 3-53: Color Sensor #1 PCB Mount Assembly

Color Sensor PCB #2 Mount Assembly

22.9678.0489 Rev B

Refer to [Figure 3-54](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|----------------------------|
| 1 | 10.9678.0452 | 1 | EA | PCB MOUNT, COLOR SENSOR #2 |
| 2 | 24.9678.0454 | 1 | EA | PCB ASSY, COLOR SENSOR #2 |
| 3 | 53.6558.0007 | 2 | EA | SCREW, 6-32 X 1/4" SEMS |

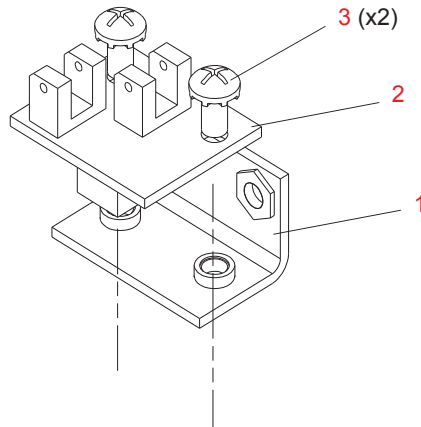


Figure 3-54: Color Sense PCB #2 Mount Assembly

Solid State Ignitor PCB

24.9661.3126 Rev 0

Refer to [Figure 3-55](#)

Only available as an assembly.

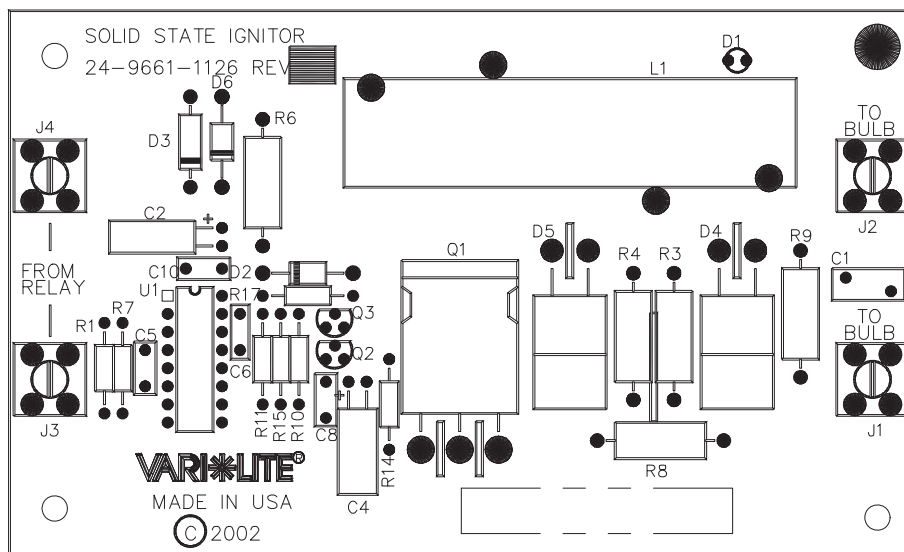


Figure 3-55: Solid State Ignitor PCB

Wheel Position Sensor PCB Assembly

24.9678.3240 Rev 0

Refer to [Figure 3-56](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|-----------------------------|
| 1 | 17.9678.3240 | 1 | EA | PCB, WHEEL POSITION SENSOR |
| 2 | 52.6447.0008 | 1 | EA | HEADER, SHROUDED 3 POSITION |

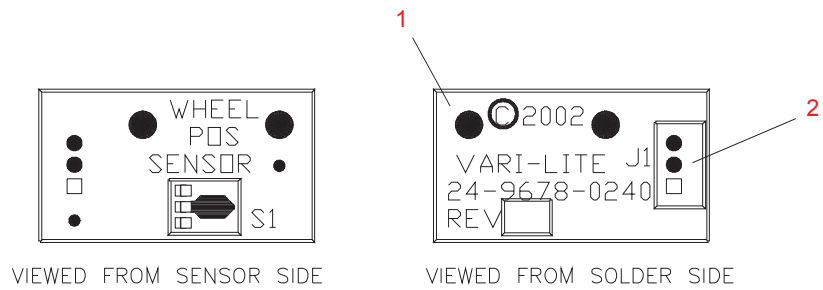


Figure 3-56: Wheel Position Sensor PCB Assembly

Color Interconnect PCB/Cable Assembly

25.9678.0409 Rev B (VL3500 Only)

Refer to [Figure 3-57](#) and [Figure 3-58](#)

| No. | Item | Qty. | UM. | Description |
|-----|-------------------|-------|-----|---------------------------------|
| 1 | 24.9678.3409 | 1 | EA | PCB ASSY, COLOR INTERCONNECT |
| 2 | 28.9678.0409 | 1 | EA | WIRE KIT, COLOR INTERCONNECT |
| - | - 04.9678.0409.00 | 1 | EA | LABEL SET, COLOR HARNESS |
| - | - 11.9678.0409 | 1 | EA | PCB, COLOR INTERCONNECT |
| - | - 52.6467.0003 | 1 | EA | CONN, FEM PLUG 3POS 30-24 AWG |
| - | - 52.6467.0005 | 1 | EA | CONN, FEM PLUG 5POS 30-24AWG |
| - | - 52.6467.0007 | 1 | EA | CONN, FEM PLUG 7POS 30-24AWG |
| - | - 52.6467.0024 | 1 | EA | CONTACT, SOCKET 30-24AWG CRIMP |
| - | - 52.6661.0006 | 1 | EA | CONN, RECEPT 6CIR WIRE TO |
| - | - 52.6467.0011 | 5 | EA | CONN, FEM PLUG 11 POS 30-24AWG |
| - | - 52.8387.0001 | 3 | EA | CONTACT, 26-28AWG FEMALE CRIM |
| - | - 55.2186.0002 | 20 | EA | CABLE TIE, .09"WD 3.750"LG TEF |
| - | - 73.2326.0123 | 17.34 | FT | WIRE, 26AWG 4COND 300V200C TEF |
| - | - 73.2326.7001 | 2.01 | FT | WIRE, 26AWG 7COND 300V 200C TE |
| - | - 73.2326.5001 | 1.3 | FT | WIRE, 26AWG 5COND 300V 200C TE |
| - | - 73.2326.3003 | 1.04 | FT | WIRE, 26AWG 3COND 300V 200C TEF |

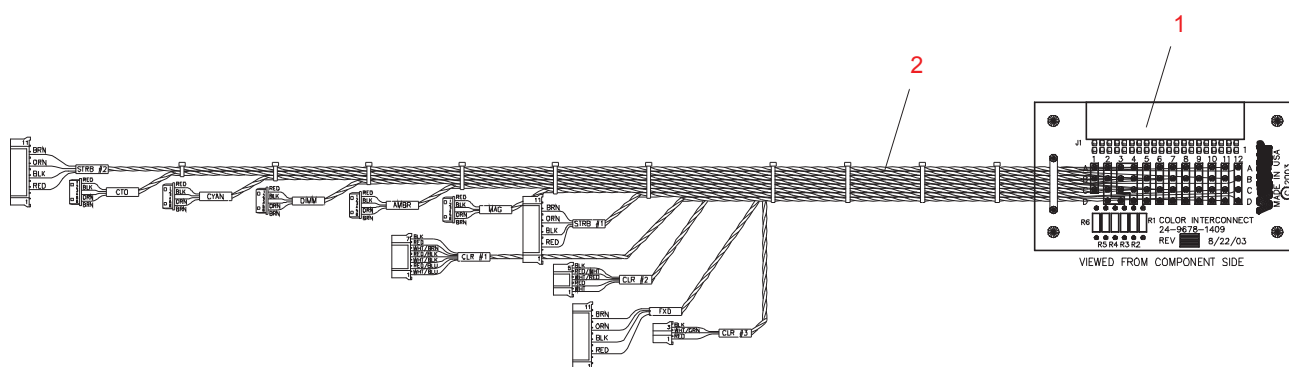
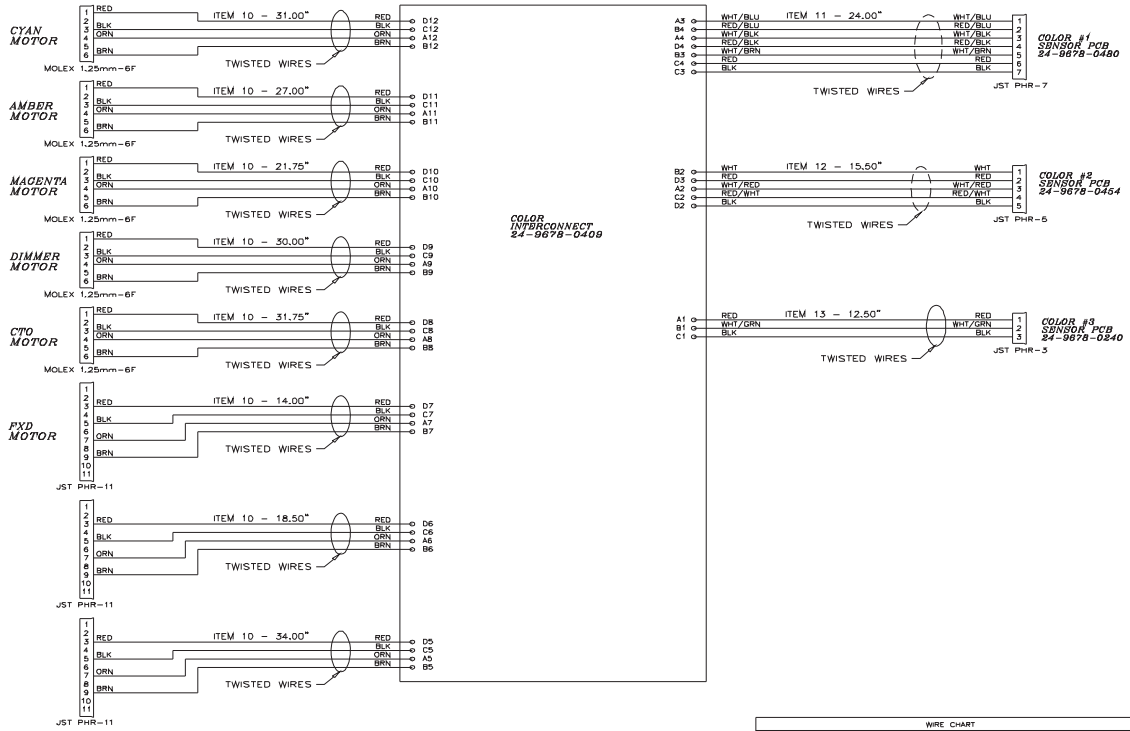


Figure 3-57: Color Interconnect PCB/Cable Assembly - VL3500 Only

Color Interconnect PCB/Cable Assembly (continued)



| WIRE CHART | | | | | |
|------------|------|---------------|------------|---------------|----------------------|
| FROM | TO | CONN ITEM NO. | WIRE COLOR | WIRE ITEM NO. | FUNCTION |
| A12 | PN 4 | 6 | ORN | 10 | CYAN MOTOR - 2A |
| B12 | PN 6 | 6 | BRN | 10 | CYAN MOTOR - 2B |
| C12 | PN 3 | 6 | BLK | 10 | CYAN MOTOR - 1B |
| D12 | PN 1 | 6 | RED | 10 | CYAN MOTOR - 1A |
| A11 | PN 4 | 6 | ORN | 10 | AMBER MOTOR - 2A |
| B11 | PN 6 | 6 | BRN | 10 | AMBER MOTOR - 2B |
| C11 | PN 3 | 6 | BLK | 10 | AMBER MOTOR - 1B |
| D11 | PN 1 | 6 | RED | 10 | AMBER MOTOR - 1A |
| A10 | PN 4 | 6 | ORN | 10 | MAGENTA MOTOR - 2A |
| B10 | PN 6 | 6 | BRN | 10 | MAGENTA MOTOR - 2B |
| C10 | PN 3 | 6 | BLK | 10 | MAGENTA MOTOR - 1B |
| D10 | PN 1 | 6 | RED | 10 | MAGENTA MOTOR - 1A |
| A9 | PN 4 | 6 | ORN | 10 | DIMMER MOTOR - 2A |
| B9 | PN 6 | 6 | BRN | 10 | DIMMER MOTOR - 2B |
| C9 | PN 3 | 6 | BLK | 10 | DIMMER MOTOR - 1B |
| D9 | PN 1 | 6 | RED | 10 | DIMMER MOTOR - 1A |
| A8 | PN 4 | 6 | ORN | 10 | CTO MOTOR - 2A |
| B8 | PN 6 | 6 | BRN | 10 | CTO MOTOR - 2B |
| C8 | PN 3 | 6 | BLK | 10 | CTO MOTOR - 1B |
| D8 | PN 1 | 6 | RED | 10 | CTO MOTOR - 1A |
| A7 | PN 7 | 7 | ORN | 10 | FXD MOTOR - 2A |
| B7 | PN 9 | 7 | BRN | 10 | FXD MOTOR - 2B |
| C7 | PN 5 | 7 | BLK | 10 | FXD MOTOR - 1B |
| D7 | PN 3 | 7 | RED | 10 | FXD MOTOR - 1A |
| A6 | PN 7 | 7 | ORN | 10 | STROBE #1 MOTOR - 2A |
| B6 | PN 9 | 7 | BRN | 10 | STROBE #1 MOTOR - 2B |
| C6 | PN 5 | 7 | BLK | 10 | STROBE #1 MOTOR - 1B |
| D6 | PN 3 | 7 | RED | 10 | STROBE #1 MOTOR - 1A |
| A5 | PN 7 | 7 | ORN | 10 | STROBE #2 MOTOR - 2A |
| B5 | PN 9 | 7 | BRN | 10 | STROBE #2 MOTOR - 2B |
| C5 | PN 5 | 7 | BLK | 10 | STROBE #2 MOTOR - 1B |
| D5 | PN 3 | 7 | RED | 10 | STROBE #2 MOTOR - 1A |
| A3 | PN 1 | 4 | WHT/BLU | 11 | SENSE - CYAN |
| A4 | PN 3 | 4 | WHT/BLK | 11 | SENSE - DIMMER |
| B3 | PN 5 | 4 | WHT/BRN | 11 | SENSE - CTO |
| B4 | PN 2 | 4 | RED/BLU | 11 | VCC_R - CYAN |
| C3 | PN 7 | 4 | BLK | 11 | GND - COLOR #1 |
| C4 | PN 6 | 4 | RED | 11 | VCC_R - CTO |
| D4 | PN 4 | 4 | RED/BLK | 11 | VCC_R - DIMMER |
| A2 | PN 3 | 3 | WHT/RED | 12 | SENSE - MAGENTA |
| B2 | PN 1 | 3 | WHT | 12 | SENSE - AMBER |
| C2 | PN 4 | 3 | RED/WHT | 12 | VCC_R - MAGENTA |
| D2 | PN 5 | 3 | BLK | 12 | GND - COLOR #2 |
| D3 | PN 2 | 3 | RED | 12 | VCC_R - AMBER |
| A1 | PN 1 | 2 | RED | 13 | VCC_R - FXD |
| B1 | PN 2 | 2 | WHT/GRN | 13 | SENSE - FXD |
| C1 | PN 3 | 2 | BLK | 13 | GND - COLOR #3 |

Figure 3-58: Color Interconnect PCB Assembly Wire Chart - VL3500 Only

Color Interconnect (Quiet) PCB/Cable Assembly

25.9678.0419 Rev A (VL3500Q Only)

Refer to [Figure 3-59](#) and [Figure 3-60](#)

| No. | Item | Qty. | UM. | Description |
|-----|-------------------|-------|-----|---------------------------------|
| 1 | 24.9678.0409 | 1 | EA | PCB ASSY, COLOR INTERCONNECT |
| 2 | 28.9678.0419 | 1 | EA | WIRE KIT, COLOR INTERCONNECT |
| - | - 04.9678.0409.00 | 1 | EA | LABEL SET, COLOR HARNESS |
| - | - 11.9678.0409 | 1 | EA | PCB, COLOR INTERCONNECT |
| - | - 52.6467.0003 | 1 | EA | CONN, FEM PLUG 3POS 30-24 AWG |
| - | - 52.6467.0005 | 1 | EA | CONN, FEM PLUG 5POS 30-24AWG |
| - | - 52.6467.0007 | 1 | EA | CONN, FEM PLUG 7POS 30-24AWG |
| - | - 52.6467.0024 | 19 | EA | CONTACT, SOCKET 30-24AWG CRIMP |
| - | - 52.6661.0006 | 5 | EA | CONN, RECEPT 6CIR WIRE TO |
| - | - 52.6467.0011 | 1 | EA | CONN, FEM PLUG 11 POS 30-24AWG |
| - | - 52.6523.0004 | 2 | EA | CONN., HOUSING 4 POS PLUG |
| - | - 52.8347.0001 | 8 | EA | CONTACT, 24-30AWG MALE CRIMP |
| - | - 52.8387.0001 | 20 | EA | CONTACT, 26-28AWG FEMALE CRIM |
| - | - 55.2186.0002 | 11 | EA | CABLE TIE, .09"WD 3.750"LG TEF |
| - | - 73.2326.0123 | 17.34 | FT | WIRE, 26AWG 4COND 300V200C TEF |
| - | - 73.2326.7001 | 2.01 | FT | WIRE, 26AWG 7COND 300V 200C TE |
| - | - 73.2326.5001 | 1.30 | FT | WIRE, 26AWG 5COND 300V 200C TE |
| - | - 73.2326.3003 | 1.04 | FT | WIRE, 26AWG 3COND 300V 200C TEF |

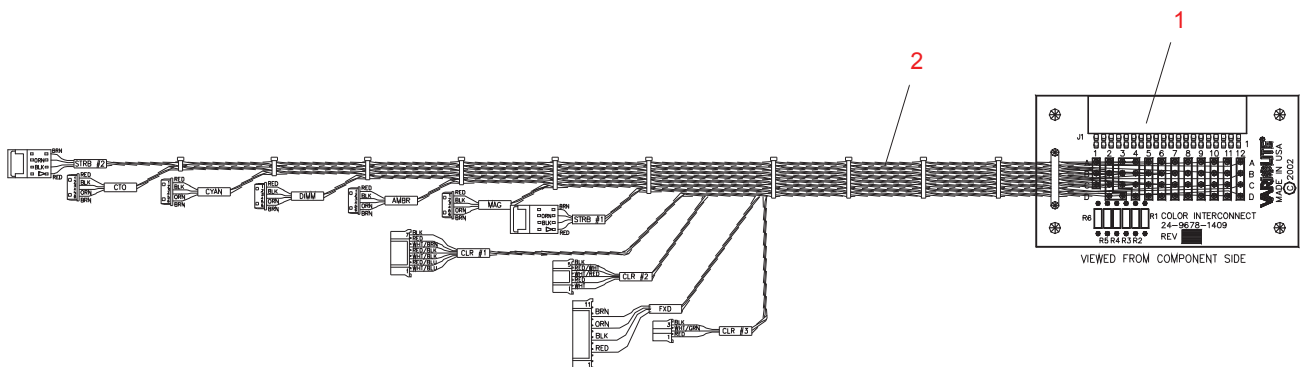


Figure 3-59: Color Interconnect PCB/Cable Assembly - VL3500Q Only

Color Interconnect PCB/Cable Assembly (continued)

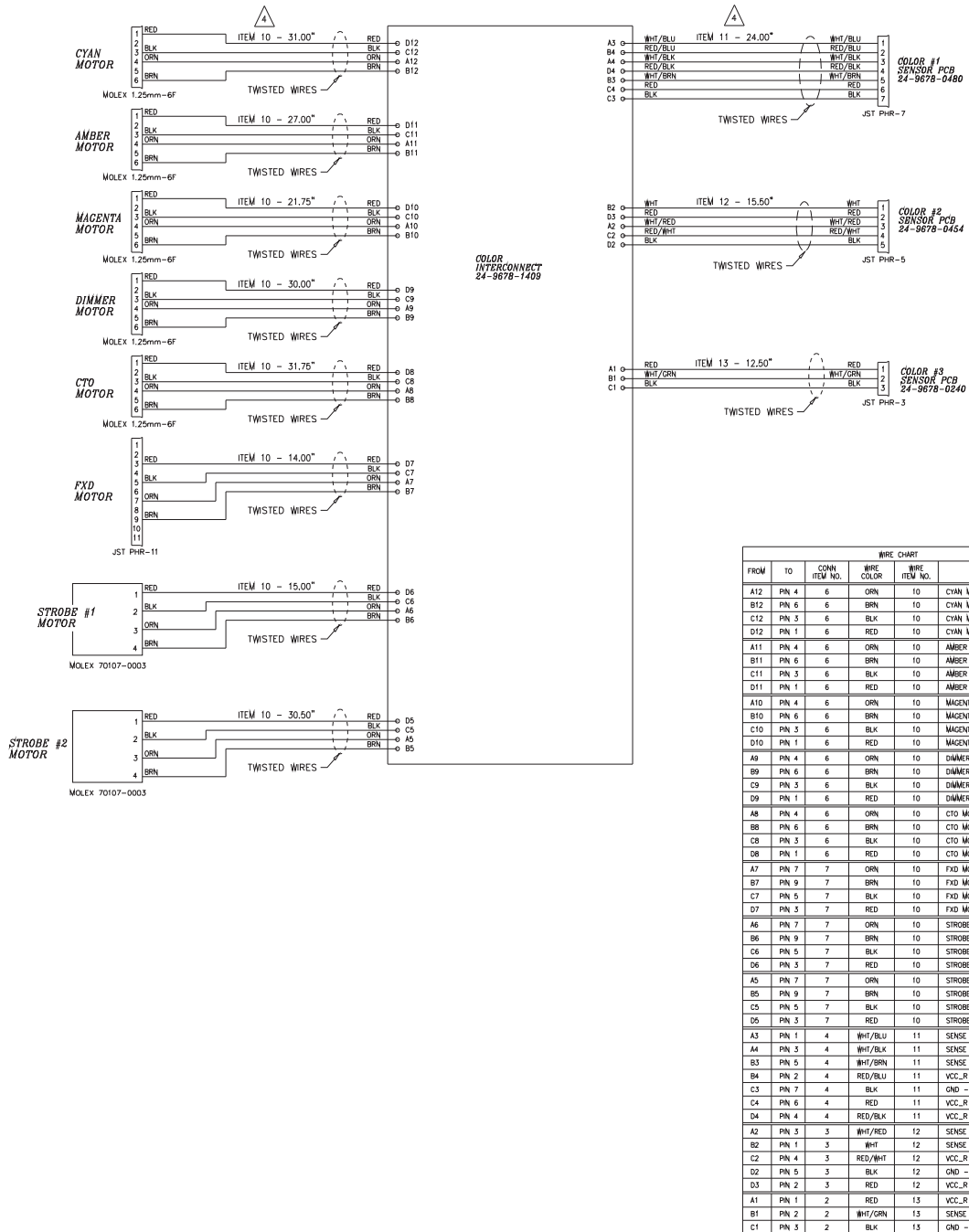


Figure 3-60: Color Interconnect PCB Assembly Wire Chart - VL3500Q Only

Pan/Tilt Encoder PCB

24.9661.9629 Rev B (VL3500)

24.9661.8629 Rev 0 (VL3500 Quiet)

Refer to [Figure 3-61](#)

Available only as an assembly.



Figure 3-61: Pan/Tilt Encoder PCB

VL3500 Controller PCB Assembly

24.9678.1730 Rev F

Refer to Figure 3-62 Available only as an assembly.

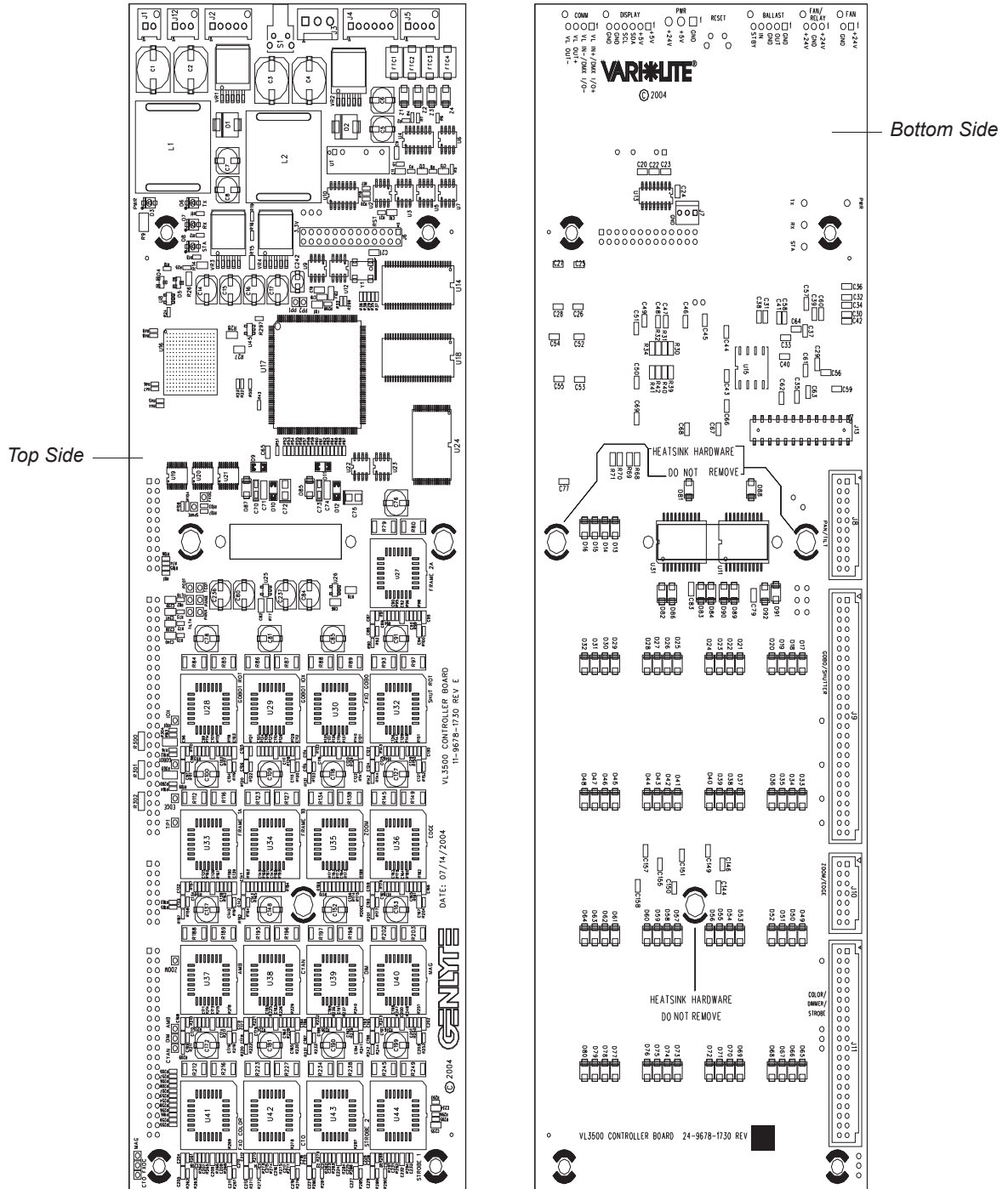


Figure 3-62: VL3500 Controller PCB

Motor Driver (Piggy Back) PCB

24.9678.1732 Rev C

Refer to [Figure 3-63](#)

| Ref. | Item | Qty. | UM. | Description |
|---|--------------|------|-----|----------------------------------|
| | 11.9678.1732 | 1 | EA | PCB, MOTOR DRIVER PGY BK VL3500 |
| U6 | 36-0090 | 1 | EA | IC, 74HC14 SCH TRIG SOIC-14 |
| J2 | 52.6599.0048 | 1 | EA | CONN, HDR 24POS SHRD .1LS VERT |
| J1 | 52.8412.0026 | 1 | EA | CONN, 26 PIN .025" SQ PIN SOCKET |
| R7, R8, R13, R14, R18, R29, R40, R41, R46, R47 | 60.1161.2673 | 10 | EA | RES, 1/16W 1% 2.67K OHM CHIP THK |
| R3-R6, R9- R12, R16, R17, R27, R28, R36- R39, R42- R45 | 60.1161.7503 | 20 | EA | RES, 1/16W 1% 7.50K OHM CHIP THK |
| R19-R22, R30, R31, R48-R51 | 60.1165.1004 | 10 | EA | RES, 1/16W 5% 10K OHM CHIP THK |
| R1, R2, R15, R34, R35 | 60.1165.2404 | 5 | EA | RES, 1/16W 5% 24.0K OHM CHIP THK |
| R23-R26, R32, R33, R52-R55 | 60.3242.1000 | 10 | EA | RES, 1W 1% 1.0 OHM WW SU |
| C1, C2, C9, C28, C29 | 62.4228.0106 | 5 | EA | CAP, 10UF, 50V 20% ALUM EL |
| C5-C11, C13, C17, C23, C32, C34, C36 | 62.4240.0103 | 10 | EA | CAP, .01UF 25V 10% CER CHIP SU |
| C3, C10, C30, C31 | 62.4240.0104 | 5 | EA | CAP, .1UF 25V 10% CER CHIP SU |
| C6, C8, C12, C18, C24, C33, C35, C37, C39 | 62.4240.0223 | 10 | EA | CAP, .022UF 25V 10% CER CHIP SU |

| Ref. | Item | Qty. | UM. | Description |
|----------------------------|--------------|------|-----|-----------------------------------|
| C15, C16, C25, C40, C41 | 62.4245.0272 | 5 | EA | CAP, 2700PF 25V 10% CER CHIP SU |
| C19-C22, C26, C27, C42-C45 | 62.4245.0471 | 10 | EA | CAP, 470PF 25V 10% CER CHIP SU |
| D1-D20 | 82.5362.0001 | 20 | EA | DIODE, SCHOTTKY BARRIER RECTIFIER |
| U1-U5 | 85.3773.0001 | 5 | EA | IC., STEP MOTOR DRIVER |

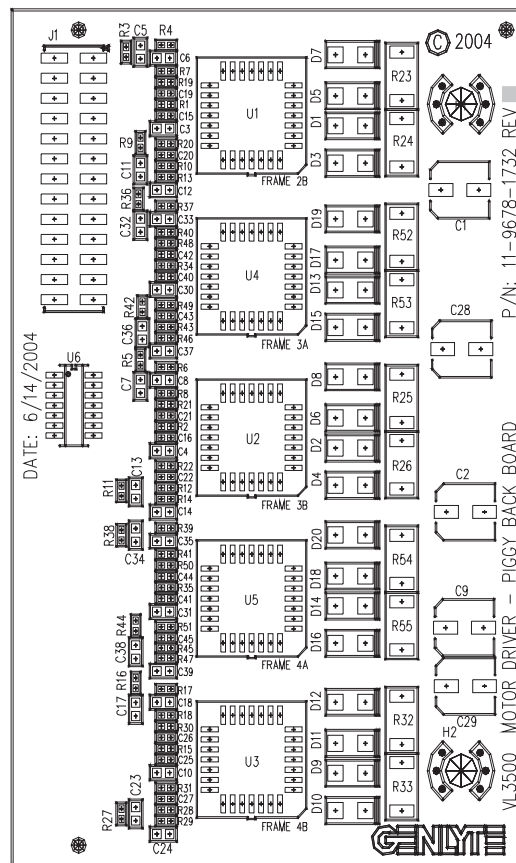


Figure 3-63: Motor Driver (Piggy Back) PCB

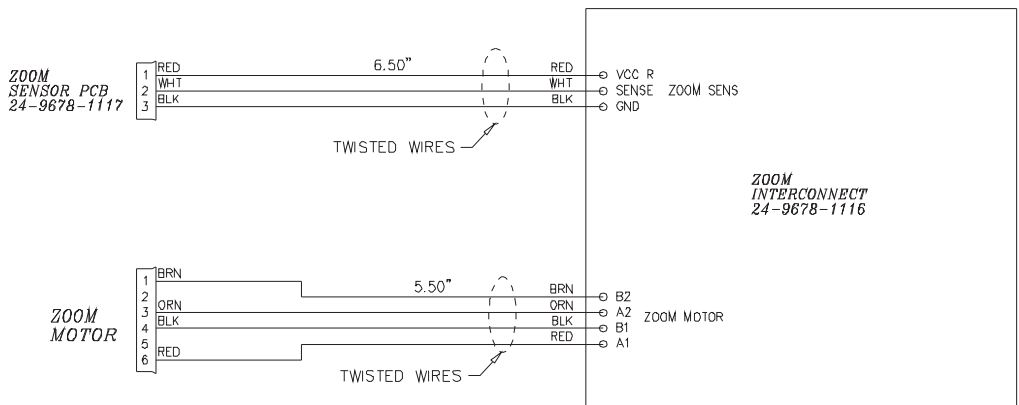
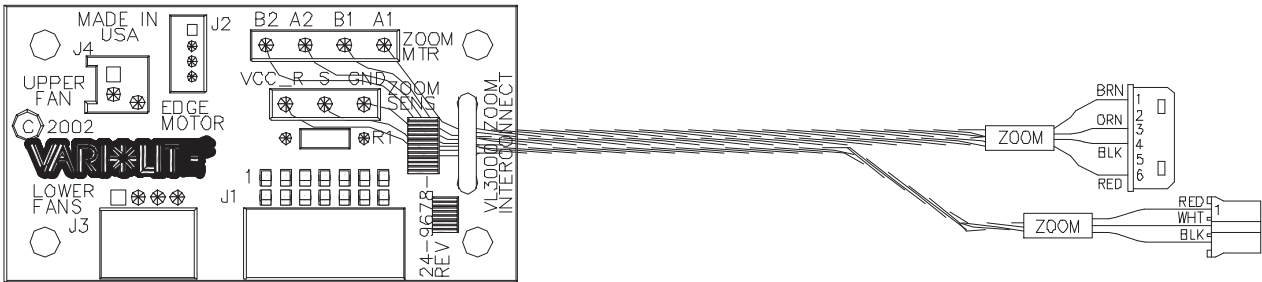
Arc Zoom Interconnect PCB Assembly

24.9678.1116 Rev 0

Refer to [Figure 3-64](#)

| Ref. | Item | Qty. | UM. | Description |
|------|-----------------|------|-----|------------------------------------|
| - | 04.9678.1116.00 | 1 | EA | LABEL SET ZOOM HARNESS (Not Shown) |
| - | 11.9678.1116 | 1 | EA | PCB ZOOM INTERCONNECT |
| J3 | 52.6259.0004 | 1 | EA | HDR 4POS NT\MTA100 SD RT ANG |
| J4 | 52.6260.0003 | 1 | EA | HEADER, 2POS MTA-100 SHROUDED |
| J2 | 52.6447.0004 | 1 | EA | HEADER, SHROUDED 4 POSITION |
| | 52.6467.0003 | 1 | EA | CONN, FEM PLUG 3POS 30-24AWG |
| | 52.6467.0024 | 3 | EA | CONTACT, SOCKET 30-24AWG CRIMP |
| J1 | 52.6598.0028 | 1 | EA | HDR 14P 2ROW AMP MODU R/A |
| | 52.6662.0006 | 1 | EA | HOUSING, 6POS 125V/2A 2.00 |
| | 52.8388.0001 | 4 | EA | CONTACT, 24-30AWG FEMALE CRI |
| | 55.2186.0001 | 1 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| R1 | 60.1425.2703 | 1 | EA | RES, 1/4W 5% 270.0 OHM CF |
| | 73.2324.0029 | .54 | FT | WIRE, 24AWG 3CD TW 300V 200C |
| | 73.2324.0123 | .46 | FT | WIRE, 24AWG 4CD TW 300V 200C |

Zoom Interconnect PCB Assembly (continued)



| WIRE CHART | | | | | |
|-------------------|-------|---------------|------------|---------------|---------------------|
| FROM | TO | CONN ITEM NO. | WIRE COLOR | WIRE ITEM NO. | FUNCTION |
| A1 - ZOOM MTR | PIN 6 | 10 | RED | 14 | ZOOM MOTOR - 1A |
| B1 - ZOOM MTR | PIN 4 | 10 | BLK | 14 | ZOOM MOTOR - 1B |
| A2 - ZOOM MTR | PIN 3 | 10 | ORN | 14 | ZOOM MOTOR - 2A |
| B2 - ZOOM MTR | PIN 1 | 10 | BRN | 14 | ZOOM MOTOR - 2B |
| VCC_R - ZOOM SENS | PIN 1 | 6 | RED | 16 | VCC_R - ZOOM SENSOR |
| S - ZOOM SENS | PIN 2 | 6 | WHIT | 16 | SENSE - ZOOM SENSOR |
| GND - ZOOM SENS | PIN 3 | 6 | BLK | 16 | GND - ZOOM SENSOR |

Figure 3-64: Arc Zoom Interconnect PCB Assembly

Zoom Sensor (Target) PCB Assembly

24.9678.0112 Rev 0

Refer to [Figure 3-65](#)

| Ref. | Item | Qty. | UM. | Description |
|------|--------------|------|-----|--------------------------------|
| - | 11.9678.1117 | 1 | EA | PCB, VL3000 ZOOM SENSOR |
| J1 | 52.6447.0003 | 1 | EA | HEADER, SHROUDED 3 POSITION |
| S1 | 86.7002.0004 | 1 | EA | SWITCH, SLOTTED OPTICAL OPB610 |



Figure 3-65: Zoom Sensor PCB Assembly

Index Sensor PCB Assembly

24.9663.1231 Rev B

Refer to [Figure 3-66](#)

| Ref. | Item | Qty. | UM. | Description |
|------|--------------|------|-----|--------------------------------|
| - | 11.9663.1231 | 1 | EA | PCB, INDEX SENSOR |
| J1 | 52.6447.0004 | 1 | EA | HEADER, SHROUDED 4 POSITION |
| S1 | 86.7002.0004 | 1 | EA | SWITCH, SLOTTED OPTICAL OPB610 |

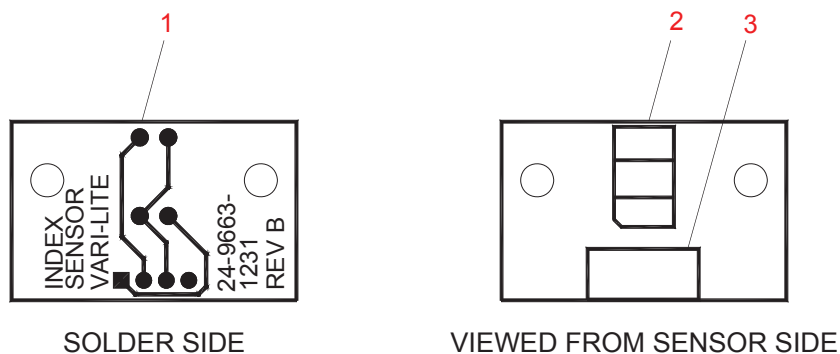


Figure 3-66: Index Sensor PCB Assembly

Notes

Enclosure Assembly

Upper Enclosure Assembly

21.9678.0800.01 Rev NN

21.9678.0801.01 Rev Y (VL3500 Quiet)

Refer to [Figure 3-67](#) and [Figure 3-68](#)

| No. | Item | Qty. | UM. | Description |
|-----|---------------------------------|------|-----|---|
| 1 | 04.9640.0374 | 1 | EA | LABEL, P.E. GROUND |
| 2 | 04.9661.1218.01 | 1 | EA | LABEL, PATENT, VL2201 & VL2400 SERIES LUM. |
| 3 | 04.9678.0040.01 | 1 | EA | LABEL, VL3000 COMPLIANCE |
| | 04.9678.0045 | 1 | EA | LABEL, VL3000 COMPLIANCE, VL3500 QUIET |
| 4 | 06.6032.0009 | 1 | EA | CABLE MARKER TIE, WHITE 19 X 7 |
| 5 | 10.9661.1258 | 1 | EA | BRACKET, APS SIDE |
| 6 | 10.9661.1358 | 1 | EA | AIR SEAL, DUCT |
| 7 | 10.9678.0820 | 1 | EA | LANYARD, PAN TUBE |
| 8 | 10.9686.0839 | 2 | EA | COVER, TOP |
| 9 | 10.9686.0846 | 2 | EA | HANDLE, CAST ENCLOSURE |
| 10 | 10.9678.0869 | 1 | EA | BRACKET, LVS |
| 11 | 10.9678.0886 | 1 | EA | SPACER, PAN BEARING 0.235" THK |
| 12 | 10.9678.0892 | 1 | EA | BUSHING, WIRE PROTECTION PAN |
| 13 | 10.9678.1876 | 1 | EA | AIR DIST PLENUM, 1200W S W BALLAST P/S |
| 14 | 12.9686.1236 | 2 | EA | MACHINED, COVER FRONT |
| 15 | 12.9686.1238 | 2 | EA | MACHINED, COVER SIDE |
| 16 | 12.9678.0842 | 1 | EA | AIR DUCT, UPPER ENCLOSURE MOD |
| 17 | 12.9678.1862 | 1 | EA | SHIELDED BALLAST, CCI |
| 18 | 21.9678.1254 | 1 | EA | ASSY, COVER - VENTILATION |
| | 21.9686.0840.02 | 1 | EA | ASSY, COVER - VENT, VL3500 QUIET, ALUMINUM (not shown) |
| 19 | 21.9678.0767 | 1 | EA | ASSY, STABILIZER |
| 19a | - 10.9678.0757 | 1 | EA | STABILIZER, 1.377DIA |
| 19b | - 10.9678.0762 | 1 | EA | BRACKET, STABLIZER |
| 19c | - 53.6610.0003 | 1 | EA | SCREW, 6-32 X 7/16" PPZ |
| 19d | - 55.6568.0075 | 1 | EA | SPRING, EXTSN 0.375" OD 1.00" LG 0.041" WIRE DIA |
| 20 | 21.9678.0805 | 1 | EA | ASSY, PANEL |
| 21 | 21.9678.0807 | 1 | EA | ASSY, PAN PULLEY |

VARILITE*® - VL3500™ SPOT LUMINAIRE SERVICE MANUAL**

| No. | Item | Qty. | UM. | Description |
|------------|--------------|-------------|------------|---|
| 22 | 21.9678.0864 | 1 | EA | ASSY, PAN MOTOR |
| 23 | 21.9678.0881 | 1 | EA | ASSY, PAN TUBE |
| 24 | 22.9678.0851 | 1 | EA | ASSY, UPPER ENCLOSURE |
| 25 | 23.9678.0686 | 1 | EA | FAN ASSY, UPPER ENCLOSURE |
| | 23.9678.0888 | 1 | EA | FAN ASSY, UPPER ENCLOSURE, SLOW, VL3500 QUIET |
| 26 | 23.9678.0687 | 1 | EA | ELEC ASSY, PAN EOT SENSOR |
| - | 25.9661.1514 | 1 | EA | CABLE ASSY, LVS CHASSIS GND (not shown) |
| - | 25.9661.1520 | 1 | EA | CABLE ASSY, CHASSIS TO YOKE GND (not shown) |
| - | 25.9678.0811 | 1 | EA | CABLE ASSY, EMI FILTER TO POWER (not shown) |
| - | 25.9678.0812 | 1 | EA | CABLE ASSY, AC INPUT SPLITTER (not shown) |
| - | 25.9678.0813 | 1 | EA | CABLE ASSY, DATA I/O LINK (not shown) |
| - | 25.9678.0816 | 1 | EA | CABLE ASSY, BALLAST TO CONTROL (not shown) |
| - | 25.9678.0818 | 1 | EA | CABLE ASSY, PAN/TILT CONTROL (not shown) |
| - | 25.9678.0821 | 1 | EA | CABLE ASSY, DC OUTPUT (not shown) |
| - | 25.9678.1825 | 1 | EA | CABLE ASSY, DISPLAY (not shown) |
| - | 25.9678.0829 | 1 | EA | CABLE ASSY, LAMP SUPPLY TO RELAY (not shown) |
| - | 25.9678.0843 | 1 | EA | CABLE ASSY, AC FAN LVS TO YOKE (not shown) |
| 27 | 52.8295.0002 | 1 | EA | TERMINAL STRIP, 300V 12AWG 20A |
| 28 | 53.2001.0003 | 1 | EA | NUT, 10-32 NYLON INSERT |
| 29 | 53.2019.0004 | 4 | EA | NUT, 3/8-16 X 7/32" THK HEX |
| 30 | 53.2200.0006 | 4 | EA | NUT, 6-32 KEPS SS |
| 31 | 53.6505.0022 | 3 | EA | BOLT, 3/8-16 X 3/4" LG CARR |
| 32 | 53.6513.0044 | 3 | EA | SCREW, M5 X 10MM STL CUP PT |
| 33 | 53.6515.0001 | 4 | EA | SCREW, 10-32 X 3/4" SCB CAP |
| 34 | 53.6522.0001 | 1 | EA | SCREW, 6-32 X 1/4" PPZ |
| 35 | 53.6522.0004 | 2 | EA | SCREW, 6-32 X 1/4" SOC HD |
| 36 | 53.6525.0188 | 2 | EA | SCREW, 6-32 X 3/16" PPZ SEMS |
| 37 | 53.6530.0023 | 2 | EA | RIVET, 1/8"OD POP .376-.500GRP |
| 38 | 53.6539.0001 | 4 | EA | WASHER, 3/8" SPLIT LOCK |
| 39 | 53.6545.0003 | 4 | EA | SCREW, 8-32 X 3/8" PFZ |
| 40 | 53.6545.0004 | 4 | EA | SCREW, 8-32 X 3/8" PPZ |
| 41 | 53.6556.0002 | 1 | EA | SCREW, 4-40 X 3/4" LG |
| 42 | 53.6558.0009 | 13 | EA | SCREW, 6-32 X 3/8" LG PPZ SEMS |
| 43 | 53.6558.0010 | 11 | EA | SCREW, 6-32 X 1/4" LG PPZ BLACK |
| 44 | 53.6558.0015 | 4 | EA | SCREW, 6-32 X 3/8" PPB SEMS EXT |
| 45 | 53.6571.0003 | 1 | EA | SCREW, 6-32 X 1-1/2" LG PPB |
| 46 | 53.6591.0001 | 2 | EA | SCREW, 6-32 X 1/4" PFZ |
| 47 | 53.6609.0001 | 4 | EA | SCREW, 6-32 X 3/8" PFZ |

| No. | Item | Qty. | UM. | Description |
|-----|--------------|-------|-----|--|
| 48 | 53.6626.0001 | 1 | EA | SCREW, 10-32 X 1/2" PPZ |
| 49 | 53.6634.1000 | 1 | EA | SCREW, 3/8-16 X 1.00" LG SOC |
| 50 | 53.6653.0502 | 4 | EA | SCREW, 1/4-20 X 1/2"LG SOC |
| 51 | 54.1206.0014 | 2 | EA | RING, RETAINING |
| 52 | 54.1255.0001 | 1 | EA | BEARING ASSY, BLACK FLUSH MOU |
| 53 | 54.2055.0001 | 1 | EA | BELT, TIMING S2M 210GROOVE 9MM |
| 54 | 55.2150.0003 | 2 | EA | STANDOFF, 1/4"HEX 6-32 1.125"L |
| 55 | 55.2178.0001 | 2 | EA | CABLE ANCHOR MOUNT, #8 SCREW |
| 56 | 55.2179.0001 | 3 | EA | CABLE ANCHOR MOUNT, #6 SCREW |
| 57 | 55.2186.0001 | 5 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 58 | 55.2261.0001 | 1 | EA | SLEEVE, NYLON THIN WALL #6 SCR |
| 59 | 55.2267.0001 | 2 | FT | RUBBER STRIP, SPONGE CLSD CELL |
| 60 | 55.6677.0039 | 4 | EA | WASHER, 0.438" OD X 0.219" ID X 0.040" THK |
| 61 | 55.6532.0004 | 2 | EA | BRACKET, 6-32 THREADED HOLES |
| 62 | 55.6543.0001 | 0.312 | FT | GROMMET STRIP, SERRATED .062" |
| 63 | 55.6543.0002 | 1.54 | FT | GROMMET STRIP, SERRATED .125" |
| 64 | 55.6549.0001 | 4 | EA | WASHER, 1/4" SPLIT LOCK |
| 65 | 55.6568.0074 | 2 | EA | SPRING, CPRSN .420"OD .750"LG 0.055" DIA WIRE |
| 66 | 55.6575.0001 | 4 | EA | SCREW, 10-32 X 3/4" PPB |
| 67 | 55.6577.0005 | 2 | EA | STANDOFF, 1/2" HEX 6-32 X 1.625" L |
| 68 | 55.6580.0002 | 2 | EA | CABLE TIE, 0.18" WD 8.0" LG |
| 69 | 55.2132.0012 | 1 | EA | STANDOFF, 1/4" HEX 6-32 X 3/4" LG |
| 70 | 55.6677.0044 | 1 | EA | WASHER, .877"OD.170"ID.093"THK |
| 71 | 55.6699.0010 | 0.50 | FT | SLEEVING, 5/16" NOM DIA WOVEN POLY ROUNDIT |
| 72 | 55.6775.0009 | 1 | EA | BUSHING, SNAP .750"ID 1"MT H |
| 73 | 67.4018.0001 | 1 | EA | FERRITE, 26 X 28.5 X 13MM CYL |
| 74 | 67.4021.0002 | 1 | EA | FILTER, EMI, CCI |
| 75 | 68.9678.0827 | 1 | EA | CHOKE, COMMON MODE |
| 76 | 69.3176.0201 | 1 | EA | POWER SUPPLY, 200W +24V/8.5A WMTH PLT (LAMBDA) |
| 77 | 55.6799.0001 | A/R | EA | PAN TUBE BEARING SHIM, 1.375" ID 1.875" OD, 0.005" THK (not shown) |
| 78 | 55.6799.0002 | A/R | EA | PAN TUBE BEARING SHIM, 1.375" ID 1.875" OD, 0.010" THK (not shown) |

Upper Enclosure Assembly (continued)

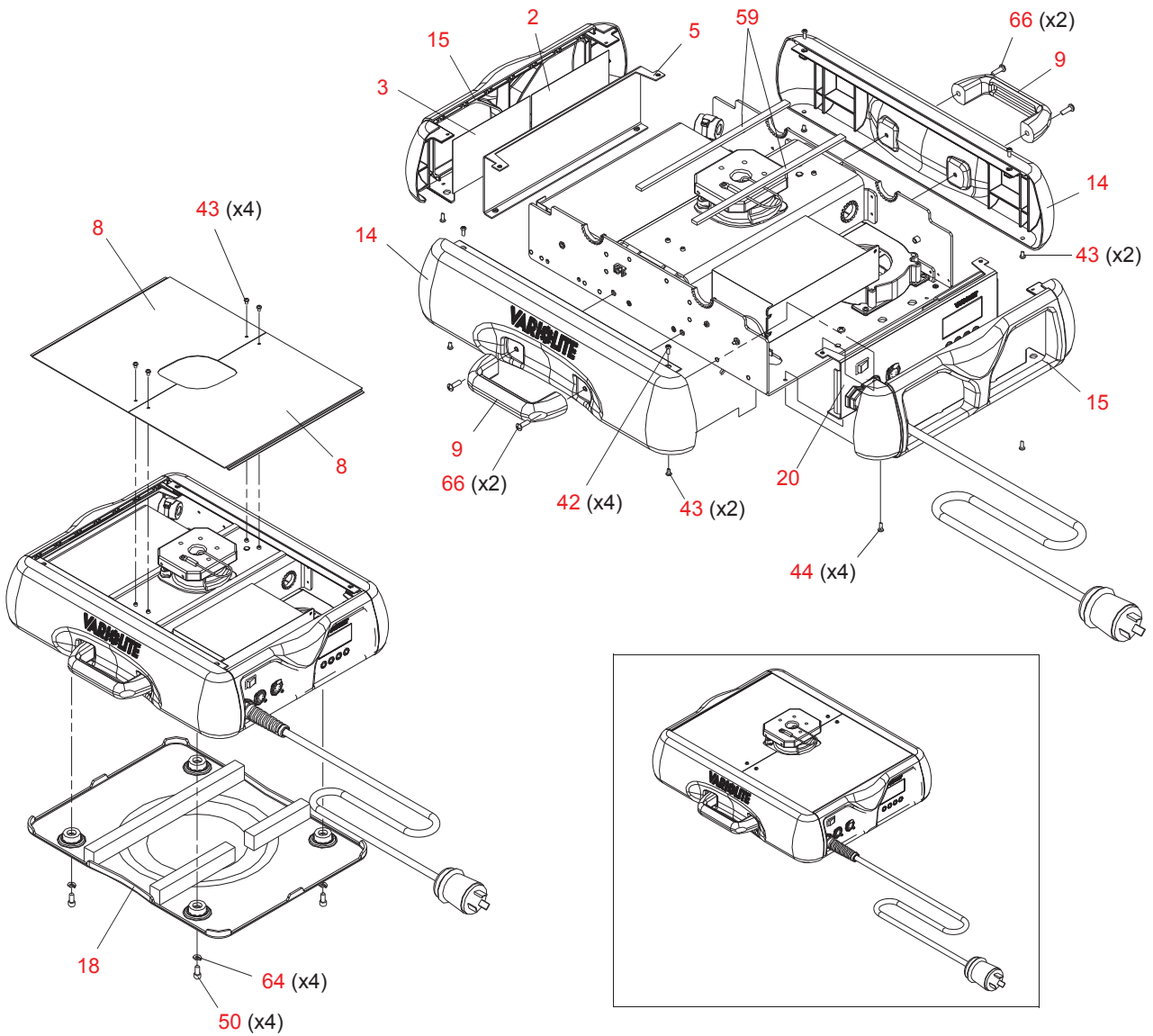


Figure 3-67: Upper Enclosure Assembly Part 1

Upper Enclosure Assembly (continued)

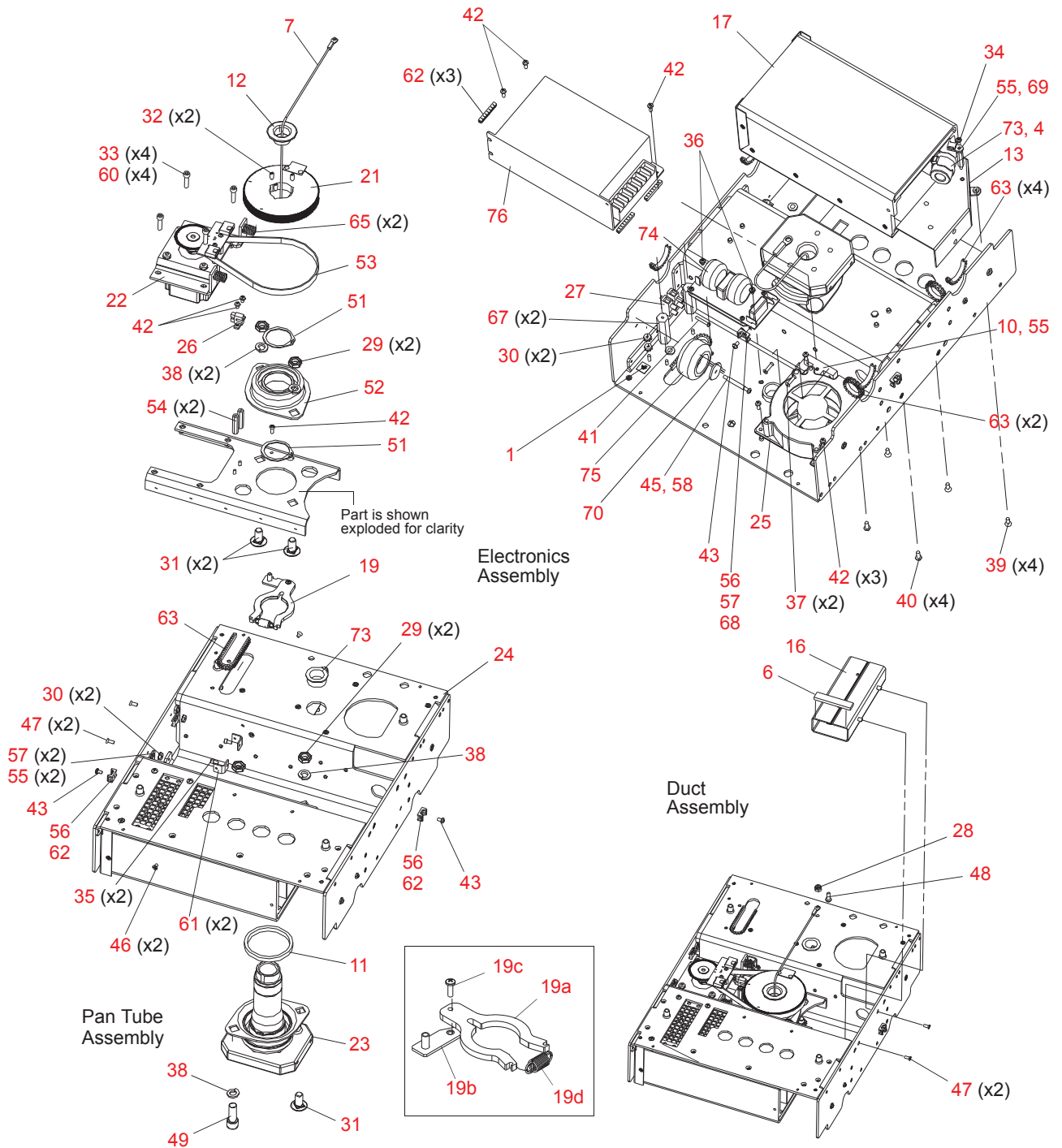


Figure 3-68: Upper Enclosure Assembly Part 2

Ventilation Cover Assembly - Standard

21.9661.1254 Rev C

Refer to [Figure 3-69](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9661.1249 | 4 | EA | POST, TRUSS HOOK |
| 2 | 10.9661.1350 | 1 | EA | COVER, VENTILATION |
| 3 | 10.9678.0893 | 1 | EA | 12" AIR SEAL, UPPER ENCLOSURE (changed 05-11-05) |
| 4 | 10.9678.0894 | 1 | EA | 6" AIR SEAL, UPPER ENCLOSURE (changed 05-11-05) |
| 5 | 10.9678.0896 | 1 | EA | 4.5" AIR SEAL, UPPER ENCLOSURE (changed 05-11-05) |
| 6 | 54.1206.0015 | 4 | EA | RING, RETAINING, PRESS-ON, 1" SH |

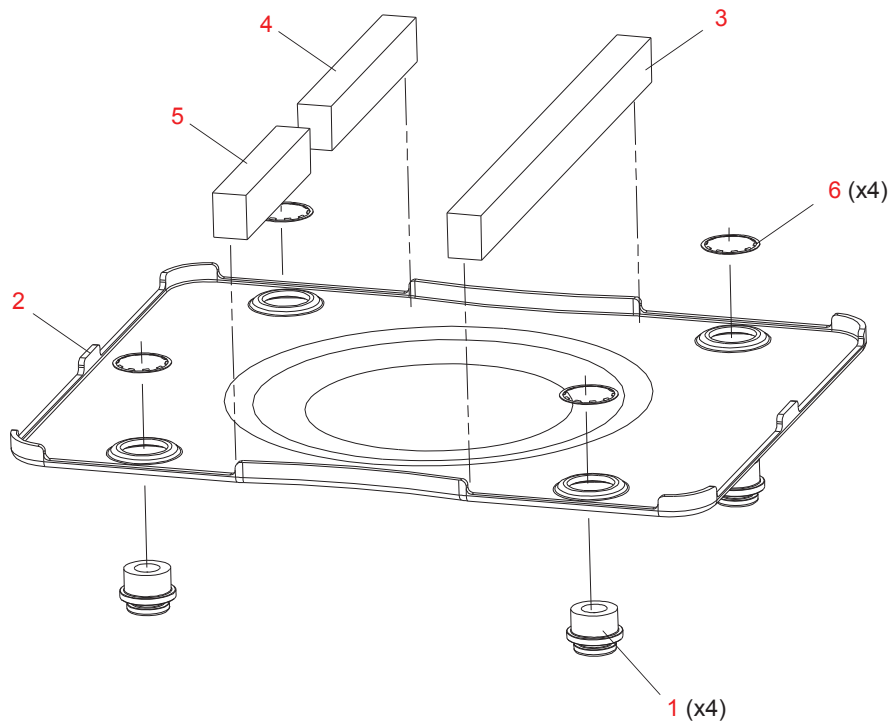


Figure 3-69: Ventilation Cover Assembly

Ventilation Cover Assembly - VL3500 Quiet

21.9686.0840.02 Rev B

Refer to [Figure 3-69](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9686.1249 | 4 | EA | POST, TRUSS HOOK |
| 1a | 10.9678.0850 | 4 | EA | POST, TRUSS HOOK, SHORT, EARLY PRODUCTION |
| 1b | 10.9678.0833 | 4 | EA | SPACER, 1.25 " |
| 2 | 10.9686.0883 | 1 | EA | COVER, VENTILATION |
| 3 | 10.9678.0837 | 1 | EA | AIR SEAL, FAN SIDE |
| 4 | 10.9678.0838 | 1 | EA | AIR SEAL, APS SIDE |
| 5 | 10.9678.0835 | 1 | EA | AIR SEAL, SHORT STRIP |
| 6 | 10.9678.0836 | 1 | EA | AIR SEAL, LONG STRIP |
| 7 | 10.9678.0887 | 2 | EA | RAIN COVER SOUND INSULATION, ALUMINUM COVER |
| 8 | 53.6653.0027 | 4 | EA | SCREW, 1/4-20 X 1 5/8 SOC HEAD |
| 9 | 54.1206.0015 | 4 | EA | RING, RETAINING, PRESS-ON, 1" SH |
| 10 | 55.6549.0001 | 4 | EA | WASHER, 1/4" SPLIT LOCK |

Ventilation Cover Assembly - VL3500 Quiet (continued)

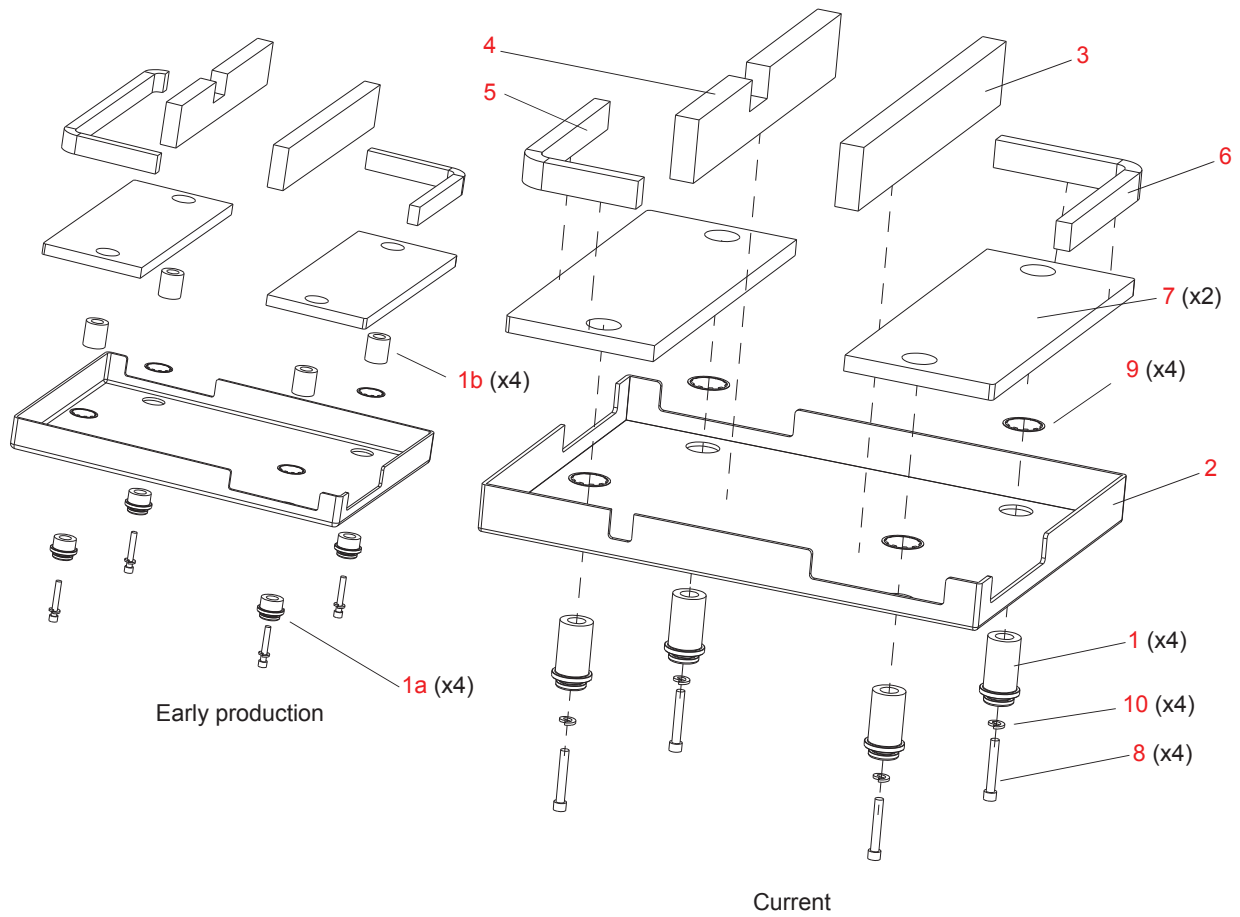


Figure 3-70: Ventilation Cover Assembly

Panel Assembly

21.9678.0805 Rev L

Refer to [Figure 3-71](#)

| No. | Item | Qty. | UM. | Description |
|-----|------------------------------|------|-----|---|
| 1 | 10.9678.0852.01 | 1 | EA | LAYOUT, ENCLOSURE OVERLAY (changed 01-06-04) |
| 2 | 10.9678.0859 | 1 | EA | BRACKET, INPUT |
| 3 | 10.9678.0872 | 1 | EA | STIFFENER, DISPLAY BOARD (added 05-26-05) |
| 4 | 24.9663.3830 | 1 | EA | PCB ASSY, DMX INPUT (changed 07-01-06) |
| 5 | 24.9678.3825 | 1 | EA | PCB ASSY, DISPLAY (changed 07-01-06) |
| 6 | 25.9678.0810 | 1 | EA | CABLE ASSY, AC INPUT PIGTAIL (changed 04-28-05) |
| 7 | 51-0541 | 4 | EA | SCREW, 4-40 X 3/8" HI-LO® BLK ZINC PLT (changed 05-30-06) |
| 8 | 53.6558.0009 | 2 | EA | SCREW, 6-32 X 3/8" LG PPZ SEMS EXT ZINC PLT |
| 9 | 55.2284.0001 | 1 | EA | CARD GUIDE, SNAP-IN 3" LONG |
| 10 | 74.2000.0001 | 1 | EA | SWITCH, ROCKER 10A 250VAC HORIZ NON-ILLUM |

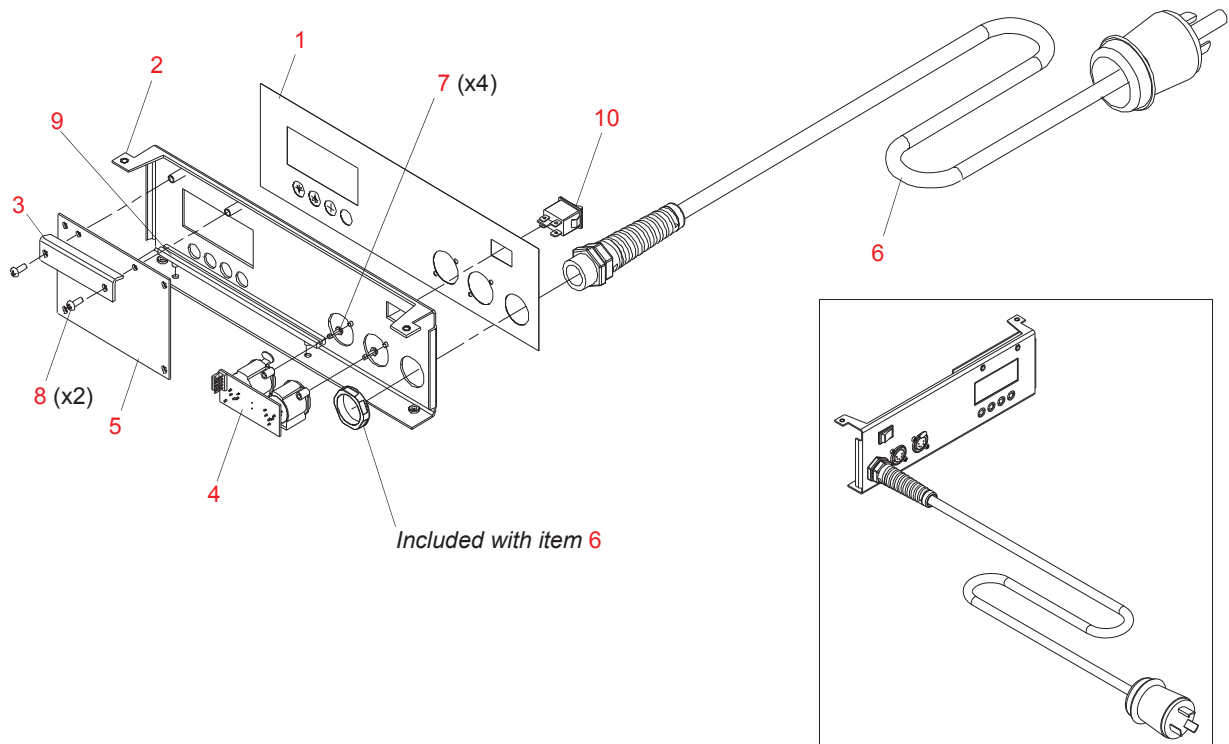


Figure 3-71: Panel Assembly

DMX Input PCB

24.9663.3830 Rev B

Refer to [Figure 3-72](#)

| No. | Item | Qty. | UM. | Description | Ref. |
|-----|--------------|------|-----|--|------|
| 1 | 11.9663.1830 | 1 | EA | PCB FAB, DMX INPUT | - |
| 2 | 52.6259.0006 | 1 | EA | HEADER, 5POS MTA FRCT LOK STRT POST | J3 |
| 3 | 52.6625.0006 | 1 | EA | CONN, RECPT XLR 5P FEM PC MT VERT | J1 |
| 4 | 52.6626.0006 | 1 | EA | CONN, RECPT XLR 5P MALE PC MT VERT | J2 |
| 5 | 62.3017.0102 | 1 | EA | CAP, 1000PF 250V RAD CER DISC 20% Y-TYPE | C1 |

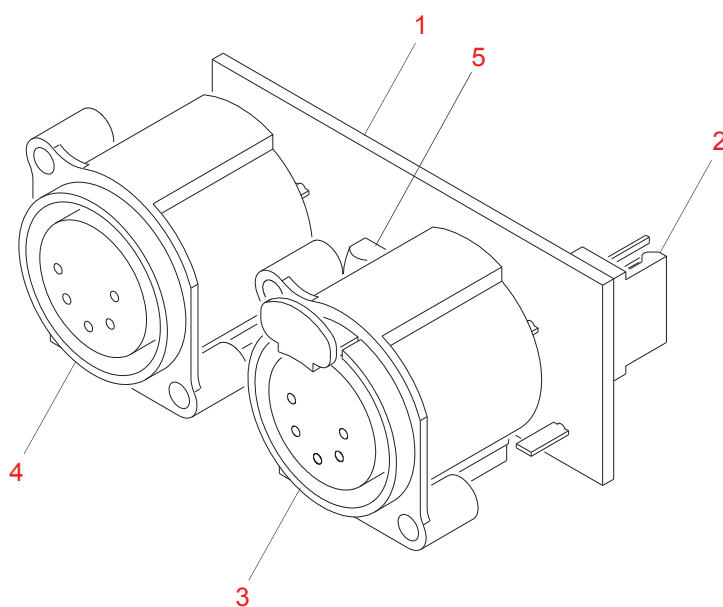


Figure 3-72: DMX Input PCB

Display PCB**24.9678.3825 Rev A**Refer to [Figure 3-73](#)

| Ref. | Item | Qty. | UM. | Description |
|---------------------|--------------|------|-----|---|
| - | 11.9678.2825 | 1 | EA | PCB BOARD, VL3000 DISPLAY |
| - | 40-0968 | 1 | EA | HEADER, 20 POS SAMTEC MTLW .1 LS |
| J1 | 52.6365.0012 | 1 | EA | HEADER, 6POS MTA100 SHROUDED R/A |
| - | 53.6659.0003 | 4 | EA | SCREW, 2-56 X 3/8" PPZ |
| - | 55.3500.0001 | 4 | EA | WASHER, #2 FLAT 0.312"OD FIBER |
| - | 55.6821.0002 | 4 | EA | STANDOFF, 5/32"RND 2-56 .125"LG BRASS SWAGE TYPE, .105" SHANK |
| R7, R14, R15 | 60.9461.1003 | 3 | EA | RES, 0.1W 5% 1.0 K 100V CHIP THICK FILM SMT0805 |
| R2, R3, R5, R9-R13 | 60.9461.1004 | 8 | EA | RES, 0.1W 5% 10.0 K 100V CHIP THICK FILM |
| R1 | 60.9461.2704 | 1 | EA | RES, 0.1W 5% 27K OHM 100V CHIP THICK FILM SMT0805 |
| R8 | 60.9461.3604 | 1 | EA | RES, 0.1W 5% 36.0 K 100V CHIP THK FLM SMT0805 |
| R6 | 60.9461.7502 | 1 | EA | RES, 0.1W 5% 750.0 OHM CHIP THK FILM SUR MT |
| C1 | 62.3038.0101 | 1 | EA | CAP, 100PF 50V 10% MONO CER CHIP SUR MT |
| C6, C13 | 62.3038.0103 | 2 | EA | CAP, 0.01UF 50V 10% MONO CER CHIP SUR MT |
| C3, C4, C7, C9, C12 | 62.3042.0102 | 5 | EA | CAP, 0.1UF 50V 20% CER CHIP SUR MT Z5U EIA0805 |
| C5 | 62.3049.0107 | 1 | EA | CAP, 100UF 10V 20% ALUM ELECTRO SUR MT |
| C8, C10, C11 | 62.3053.0106 | 3 | EA | CAP, 10UF 35V 20% ALUM ELECTRO SUR MT |
| C2 | 62.3053.0226 | 1 | EA | CAP, 22UF 35V 20% ALUM ELECTRO SUR MT |
| S5 | 71-0670 | 1 | EA | WIRE, JUMPER 22 AWG BARE, 0.1" LG |
| U3 | 72.2130.0002 | 1 | EA | DISPLAY, LCD GRAPHIC MODULE 122 X 22 |
| XS1, XS1, XS3, XS4 | 74.1085.0013 | 4 | EA | CAP, SWITCH, 5MM SQ BLACK TL1105 |
| S1, S2, S3, S4 | 74.1098.0003 | 4 | EA | SWITCH, TACT, SPST |
| D1 | 82.5350.0002 | 1 | EA | DIODE, BAT54SLT1 DUAL SCHOTTKY CATHODE TO ANODE CONNECTED 30V 200MA |
| VR1 | 83.3205.0001 | 1 | EA | IC, LP3964EMP-ADT LINEAR REGULATOR 800MA ADJUSTABLE SMT |
| U5 | 83.3207.0002 | 1 | EA | IC, TIMER, ICM7555ISA SOIC-8-N |
| U1, U2, U4 | 83.3208.0002 | 3 | EA | IC, PCA9554PW TSSOP-6 |

Display PCB (continued)

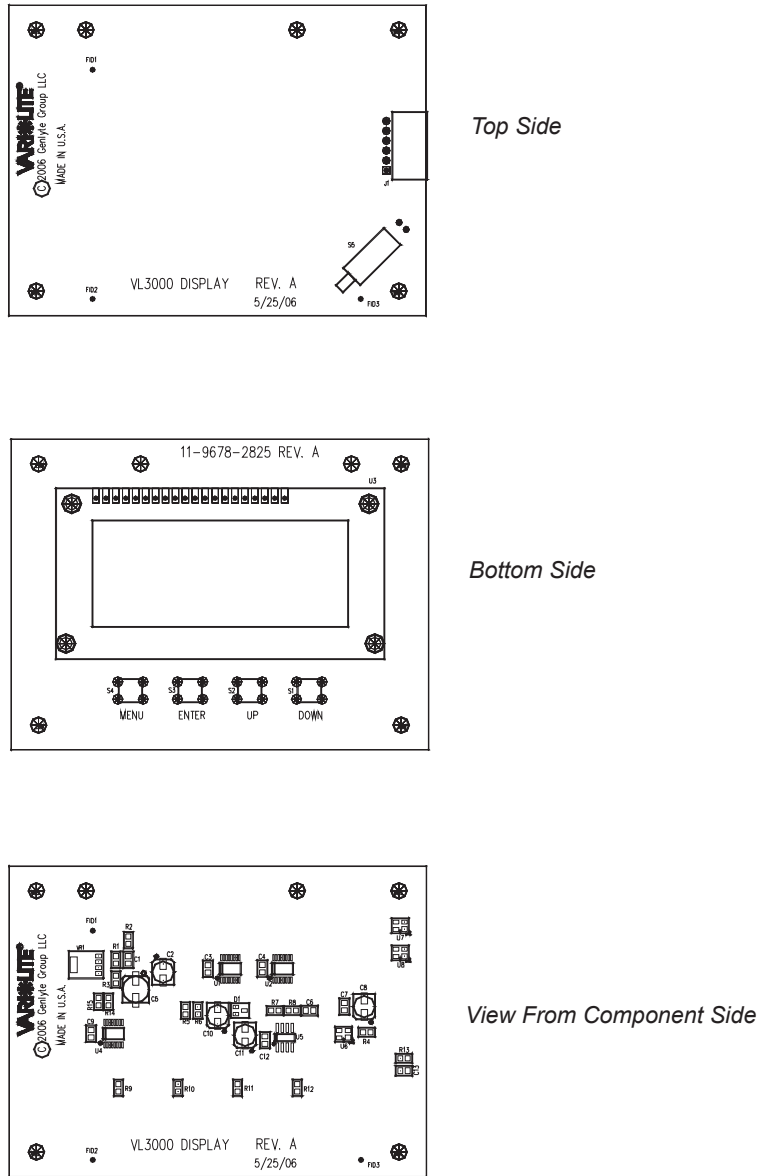


Figure 3-73: Display PCB

Pan Pulley Assembly

21.9678.0807 Rev E

Refer to [Figure 3-74](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 10.9678.0750 | 1 | EA | TIMING PULLEY, 2MM GT 150 TOOTH |
| 2 | 10.9678.0855 | 1 | EA | PAN FLAG |
| 3 | 53.6530.0009 | 2 | EA | RIVET, 1/8"OD POP 0.126-0.187GL (changed 10-05-06) |

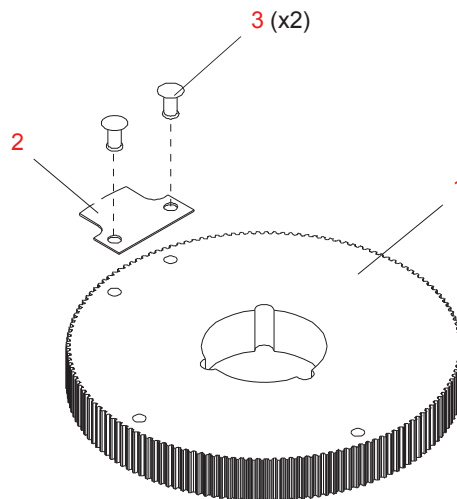


Figure 3-74: Pan Pulley Assembly

Pan Motor Assembly

21.9678.0864 Rev E

Refer to [Figure 3-75](#)

| No. | Item | Qty. | UM. | Description |
|-----|----------------|------|-----|--|
| 1 | 10.9678.0865 | 1 | EA | PLATE, PAN MOTOR MOUNT |
| 2 | 21.9678.0828 | 1 | EA | ASSY, DRIVE PULLEY, PAN |
| | - 10.9678.0720 | 1 | EA | CODEWHEEL, 120 COUNT LARGE ID |
| | - 10.9678.0749 | 1 | EA | TIMING PULLEY, 2MM GT 17 TOOTH |
| | - 53.5562.0250 | 1 | EA | SCREW, 8-32 X 1/4" SET FLAT POINT |
| 3 | 24.9678.9729 | 1 | EA | PCB ASSY, VL3000 PAN ENCODER (changed 06-27-07) |
| 4 | 44.9678.0680 | 1 | EA | MOTOR, 3 PHASE SIZE 23 HIGH TORQUE |
| 5 | 53.2200.0008 | 4 | EA | NUT, 8-32 KEPS SS |
| 6 | 53.6546.0001 | 4 | EA | SCREW, 8-32 X 5/8" PPB |
| 7 | 53.6682.0002 | 2 | EA | SCREW, 4-40 X 1/4" LG PPZ SEMS-EXT |
| 8 | 55.2132.0014 | 2 | EA | STANDOFF, 1/4"HEX 4-40 1.062" LG CS (changed 05-18-06) |

Note: Vari-Lite recommends that this motor be replaced as a complete assembly. Although you can replace only the motor, the pulley (Item 2) is bonded to the motor shaft during assembly and cannot be removed intact. If you order a replacement motor (Item 4), also order the pulley (Item 2). Contact Vari-Lite Customer Service for installation information.

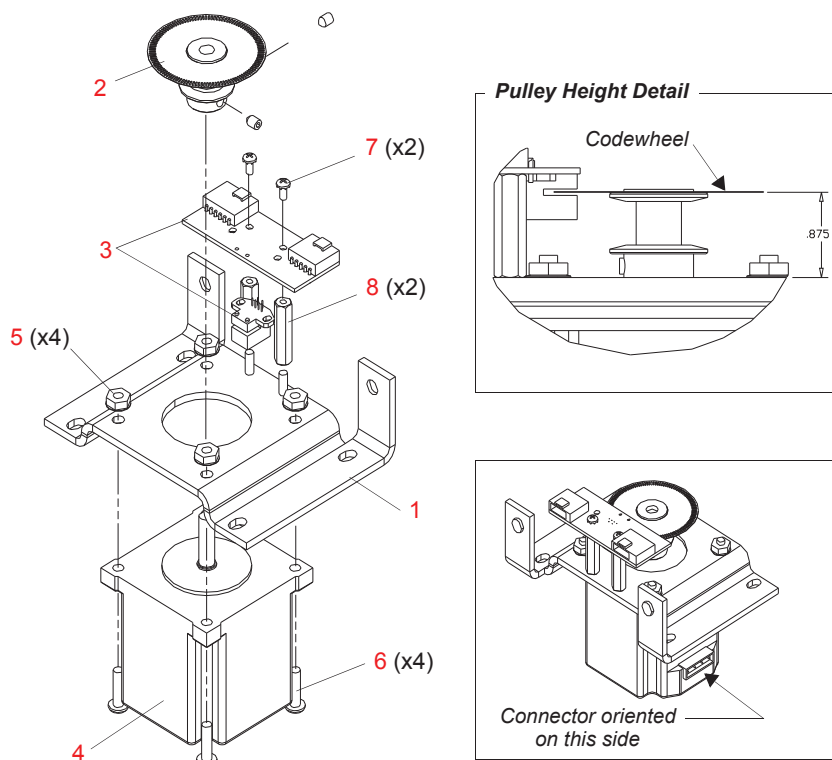


Figure 3-75: Pan Motor Assembly

Pan Tube Assembly

21.9678.0881 Rev 0

Refer to [Figure 3-76](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 10.9678.0809 | 1 | EA | PAN TOGGLE STOP |
| 2 | 10.9678.0847 | 1 | EA | SILICONE FOAM WASHER |
| 3 | 10.9678.0848 | 2 | EA | WASHER, PAN TEFLON |
| 4 | 12.9678.0877 | 1 | EA | PAN TUBE, MACHINED |
| 5 | 54.1206.0021 | 1 | EA | RING, RETAINING 1.562"SHAFT 1.468"GRV DIA .068"GRVWD EXTERNAL |
| 6 | 54.1255.0002 | 1 | EA | BEARING ASSY, FLUSH MOUNT HOUSING LARGE |

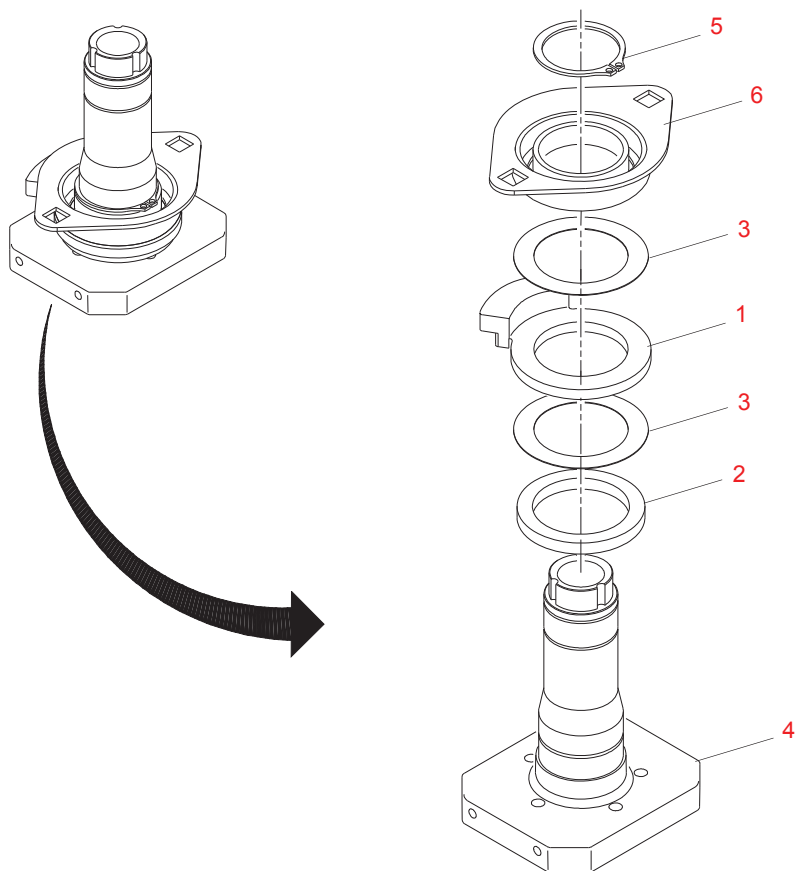


Figure 3-76: Pan Tube Assembly

Notes

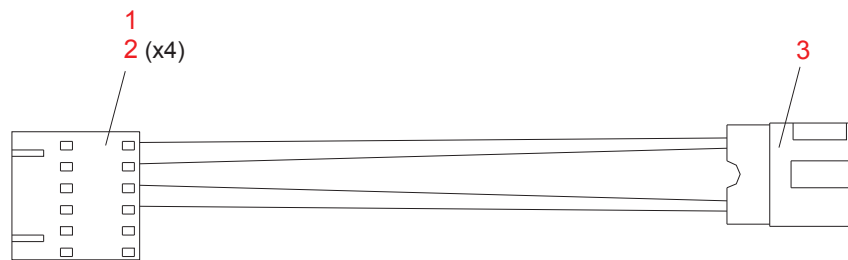
Cable Assemblies

Pan EOT Sensor Electrical Assembly

23.9678.0687 Rev A

Refer to [Figure 3-77](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--------------------------------|
| 1 | 52.6524.0006 | 1 | EA | CONN, HOUSING 6 POS RECEPTACLE |
| 2 | 52.8346.0001 | 4 | EA | CONTACT, 24-30AWG FEMALE CRIMP |
| 3 | 86.7002.0003 | 1 | EA | SWITCH, SLOTTED OPTICAL |



| WIRE CHART | | |
|------------|--------|--------------------|
| CONNECTOR | SENSOR | DESCRIPTION |
| PIN 1 | N.C. | NO CONNECTION |
| PIN 2 | N.C. | NO CONNECTION |
| PIN 3 | BLACK | IRED CATHODE |
| PIN 4 | RED | IRED ANODE |
| PIN 5 | GREEN | DETECTOR EMITTER |
| PIN 6 | WHITE | DETECTOR COLLECTOR |

Figure 3-77: Pan EOT Sensor Electrical Assembly

LVS Chassis Ground Cable Assembly

25.9661.1514 Rev A

Refer to [Figure 3-78](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.8231.0001 | 1 | EA | TERM, RING #6 BLUE 16-14 AWG REEL PIDG |
| 2 | 52.8271.0001 | 1 | EA | FASTON RECEPT, 16-14 AWG (REEL) |
| 3 | 73.3516.0504 | 3.5 | IN | WIRE, 16 AWG 300V 105C PVC GRN/YEL UL1569 |



Figure 3-78: LVS Chassis Ground Cable Assembly

Chassis To Yoke Ground Cable Assembly

25.9661.1520 Rev C

Refer to [Figure 3-79](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|-------|-----|--|
| 1 | 52.8250.0006 | 2 | EA | TERM, #8, RING, 10AWG |
| 2 | 73.7089.0504 | 15.17 | FT | WIRE, 22AWG 300V 200C TEF GRN/YEL UL1180 |



Figure 3-79: Chassis To Yoke Ground Cable Assembly

Head to Back Cap Ground Cable Assembly

25.9661.1522 Rev B

Refer to [Figure 3-80](#).

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.8311.0003 | 2 | EA | TERM, RING #6 14-16AWG NON-INS. TAPE |
| 2 | 73.7130.0001 | 1.33 | FT | WIRE, 7/64" TUBULAR BRAID TINNED COPPER |

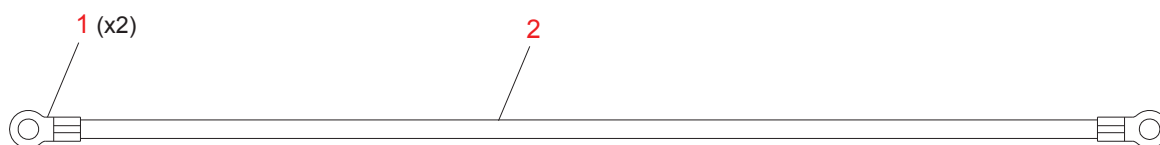


Figure 3-80: Head to Back Cap Ground Cable Assembly

Ignitor to Relay Cable Assembly

25.9661.1526 Rev C

Refer to Figure 3-81.

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.8231.0005 | 1 | EA | TERM, RING #6 BLUE 16-14 AWG (REEL) PIDG |
| 2 | 52.8312.0001 | 1 | EA | RECP, FASTON 1/4" 18-14 AWG INSULATED VO |
| 3 | 73.7101.0009 | 0.42 | FT | WIRE, 14AWG 15KV 150C SILICONE 41/30 STRANDING |



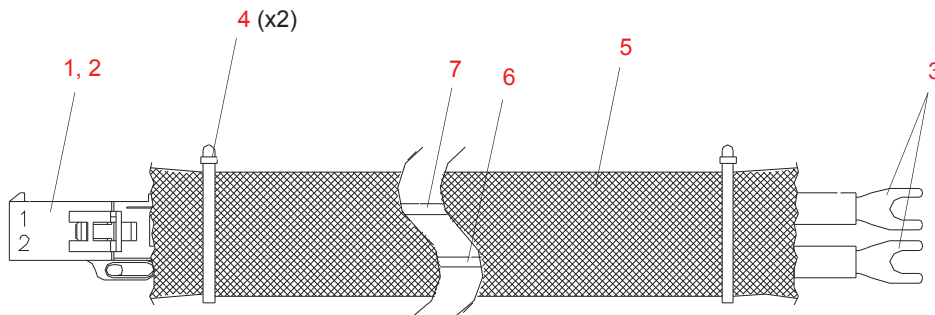
Figure 3-81: Ignitor to Relay Cable Assembly

LVS to Yoke AC Fan Cable Assembly

25.9678.0843 Rev A

Refer to [Figure 3-82](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6664.0001 | 2 | EA | CONTACT, 22-26AWG FEMALE MATE-N-LOK 2 |
| 2 | 52.6664.0002 | 1 | EA | CONN, HOUSING 2 POS CAP MATE-N-LOK 2 |
| 3 | 52.8231.0008 | 2 | EA | TERM, SPADE #6 RED 22-16AWG INSERT |
| 4 | 55.2186.0001 | 2 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 5 | 55.6699.0002 | 2.08 | FT | SLEEVING, 1/4"NOM.DIA. POLY EXP BRAIDED |
| 6 | 73.6222.0009 | 2.17 | FT | WIRE, 22AWG 600V 200C TFE WHT UL1199 |
| 7 | 73.6222.0010 | 2.17 | FT | WIRE, 22AWG 600V 200C TFE BLK UL1199 |



| WIRE CHART | | | | |
|------------|---------------|-------|---------------|------------|
| FROM | CONN ITEM NO. | TO | CONN ITEM NO. | WIRE COLOR |
| PIN 1 | 2 | SPADE | 3 | BLK |
| PIN 2 | 2 | SPADE | 3 | WHT |

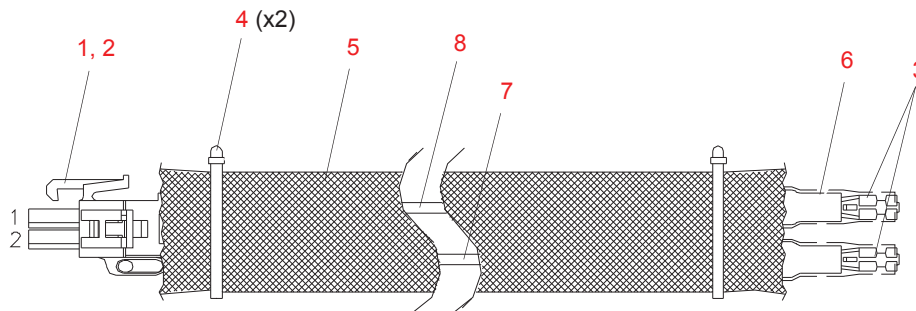
Figure 3-82: LVS to Yoke AC Fan Cable Assembly

Yoke to AC Fan Cable Assembly

25.9678.0012 Rev A

Refer to [Figure 3-83](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6665.0001 | 2 | EA | CONTACT, 22-26AWG MALE MATE-N-LOK 2 |
| 2 | 52.6665.0002 | 1 | EA | CONN, HOUSING 2 POS PLUG MATE-N-LOC 2 |
| 3 | 52.8413.0001 | 2 | EA | RECEPT, FASTON .110 SERIES 22-18AWG INSULATED |
| 4 | 55.2186.0002 | 2 | EA | CABLE TIE, .09"WD 3.750"LG TEFZEL |
| 5 | 55.2260.0208 | 2.58 | FT | SLEEVING, FIBERGLASS 0.208 ID |
| 6 | 55.2200.0003 | 0.25 | FT | HEATSHRINK, 3/16" VITON |
| 7 | 73.6222.0009 | 3 | FT | WIRE, 22AWG 600V 200C TFE WHT UL1199 |
| 8 | 73.6222.0010 | 3 | FT | WIRE, 22AWG 600V 200C TFE BLK UL1199 |



| WIRE CHART | | | | |
|------------|---------------|-------|---------------|------------|
| FROM | CONN ITEM NO. | TO | CONN ITEM NO. | WIRE COLOR |
| PIN 1 | 2 | SPADE | 3 | BLK |
| PIN 2 | 2 | SPADE | 3 | WHT |

Figure 3-83: Yoke To Fan AC Fan Cable Assembly

Backcap Interlock to Gobo Fan Interlock Cable Assembly

25.9678.0014 Rev B

Refer to [Figure 3-84](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.8414.0001 | 2 | EA | RECEPT, FASTON .187 SERIES 24-20 AWG UNINSUL |
| 2 | 73.7089.0000 | 2.00 | FT | WIRE, 22AWG 300V 200C TEF BLK UL1180 |

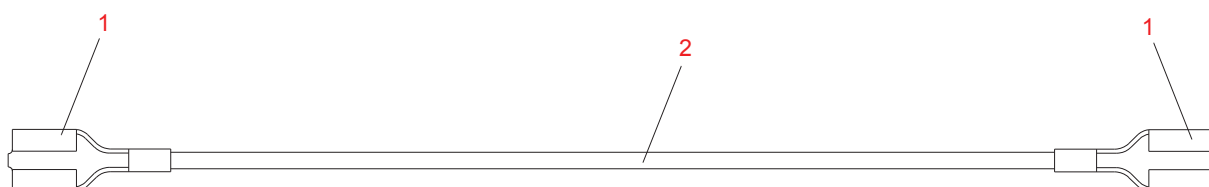


Figure 3-84: Backcap Interlock to Gobo Fan Interlock Cable Assembly

Relay to Gobo Fan Interlock Cable Assembly

25.9678.0675 Rev B

Refer to [Figure 3-85](#).

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.8230.0003 | 1 | EA | RECEPT, 1/4" FASTON 22-18AWG (TAPE MOUNT) |
| 2 | 52.8414.0001 | 1 | EA | RECEPT, FASTON .187 SERIES 24-20 AWG UNINSUL |
| 3 | 73.7089.0000 | 2.00 | FT | WIRE. 22AWG 300V 200C TEF BLK UL1180 |

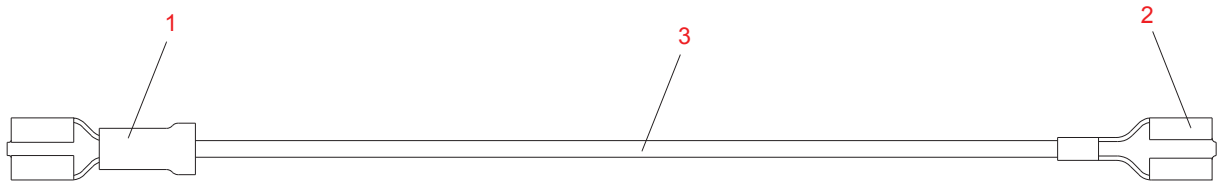


Figure 3-85: Relay to Gobo Fan Interlock Cable Assembly

Front Head Fans Cable Assembly

25.9678.0677 Rev B

Refer to [Figure 3-86](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6396.3104 | 1 | EA | RECEPT, 4POS MTA100 W/POL TAB BLU CLSD END |
| 2 | 52.6524.0002 | 2 | EA | CONN, HOUSING 2POS RECEPTACLE |
| 3 | 52.8346.0001 | 4 | EA | CONTACT, 24-30AWG FEMALE CRIMP |
| 4 | 73.5126.0002 | 2.67 | FT | WIRE, 26AWG 2COND 300V 80C <BLK-RED> |

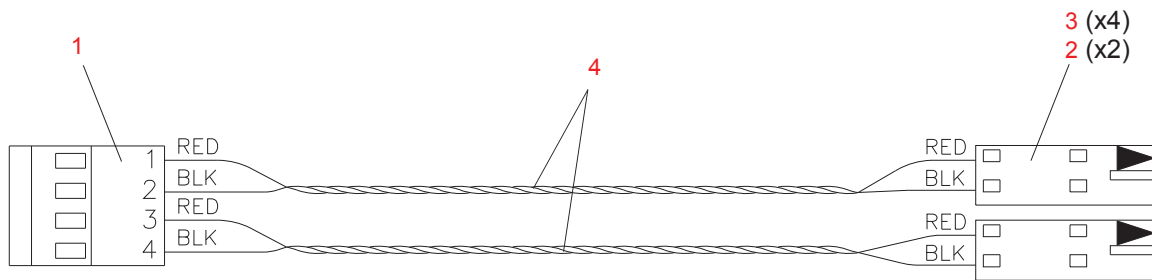


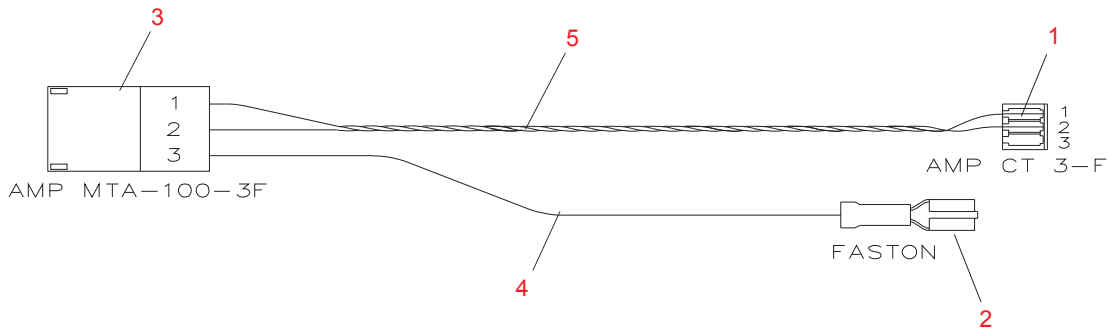
Figure 3-86: Front Head Fans Cable Assembly

Yoke Fan and Relay (Standard) Cable Assembly

25.9678.0681 Rev C (VL3500 Only)

Refer to [Figure 3-87](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6423.0003 | 1 | EA | HOUSING, 3 POS MT RECEPT, 2MM |
| 2 | 52.8230.0003 | 1 | EA | RECEPT, 1/4" FASTON 22-18AWG |
| 3 | 52.6396.3103 | 1 | EA | RECEPT, 3 POS MTA100 W/ POL TAB BLU CLSD END |
| 4 | 73.3526.0002 | 1.25 | FT | WIRE, 26AWG 300V 105C PVC RED |
| 5 | 73.5126.0002 | 1.50 | FT | WIRE, 26AWG 2 COND 300V 80C <RED-BLK> |



| WIRE CHART | | | | |
|------------|---------------|--------|---------------|------------|
| FROM | CONN ITEM NO. | TO | CONN ITEM NO. | WIRE COLOR |
| PIN 1 | 3 | PIN 1 | 1 | RED |
| PIN 2 | 3 | PIN 2 | 1 | BLK |
| PIN 3 | 3 | FASTON | 2 | RED |

Figure 3-87: Yoke Fan and Relay (Standard) Cable Assembly - VL3500 Only

Air Duct OT Switch Cable Assembly

25.9678.0690 Rev 0 (VL3500Q)

25.9678.0691 Rev 0

Refer to [Figure 3-88](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.8414.0001 | 1 | EA | RECEPT, FASTON .187 SERIES, 24-20AWG UNISUL |
| 2 | 52.8237.0002 | 1 | EA | TERM, RING #4 24-20AWG |
| 3 | 73.7089.0000 | 1.48 | FT | WIRE, 22AWG BLK 300V 200C TEFLON STRANDED |
| 4 | 55.2260.0133 | .375 | FT | SLEEVING, FIBERGLASS, .133" ID |
| 5 | 55.2198.0002 | .083 | FT | HEATSHRINK, 1/8" BLACK |
| 6 | 63.2047.5130 | 1 | EA | THERMOSTAT, 130° TO-220 OPEN ON RISE |
| | 63.2047.5120 | 1 | EA | THERMOSTAT, 120° TO-220 OPEN ON RISE, VL3000 QUIET |

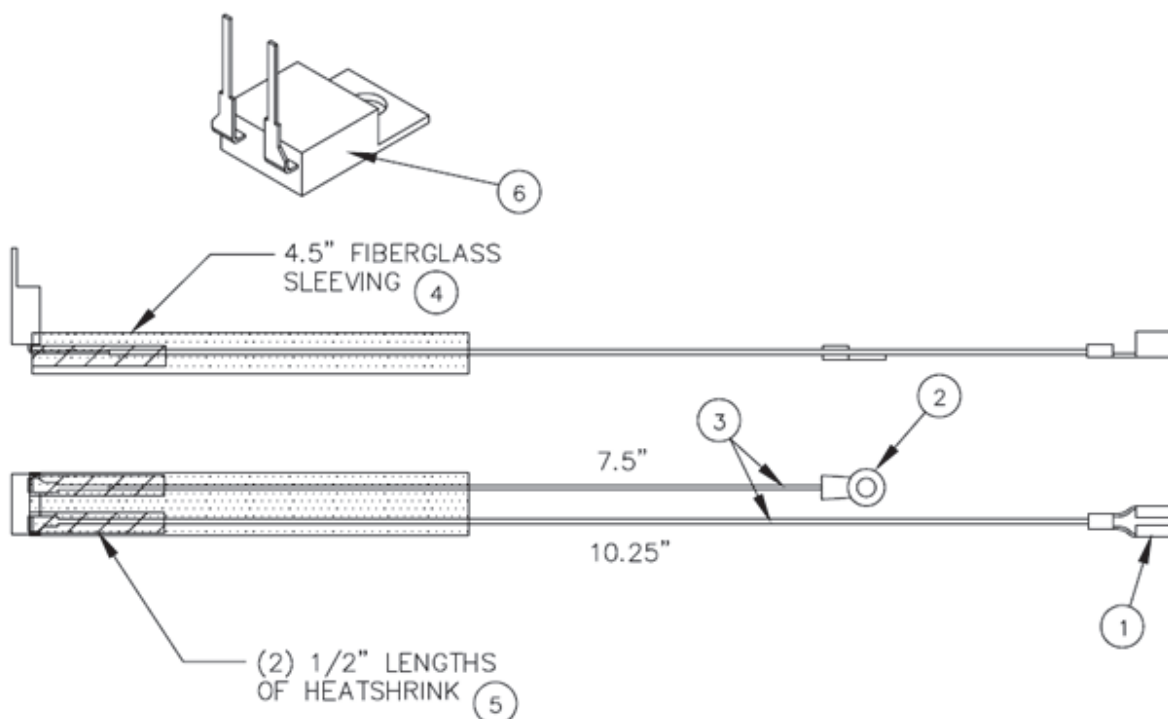


Figure 3-88: Air Duct OT Switch Cable Assembly

Yoke Fan and Relay (Quiet) Cable Assembly

25.9678.0781 Rev A (VL3500Q Only)

Refer to Figure 3-89

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6423.0003 | 1 | EA | HOUSING, 3 POS MT RECEPT, 2MM |
| 2 | 52.8230.0003 | 1 | EA | RECEPT, 1/4" FASTON 22-18AWG |
| 3 | 52.6396.3103 | 1 | EA | RECEPT, 3 POS MTA100 W/ POL TAB BLU CLSD END |
| 4 | 55.2186.0001 | 1 | EA | CABLE TIE, .10 X 4" SMALL |
| 5 | 55.2268.0125 | 1 | IN | HEATSHRINK, 1/8" CLEAR KYNAR UL 600V 150° C |
| 6 | 60.7440.2002 | 1 | EA | RESISITOR, 5W, 5% 200 OHM WIREWOUND |
| 7 | 73.3526.0002 | 1.25 | FT | WIRE, 26AWG 300V 105C PVC RED |
| 8 | 73.5126.0002 | 1.50 | FT | WIRE, 26AWG 2 COND 300V 80C <RED-BLK> |

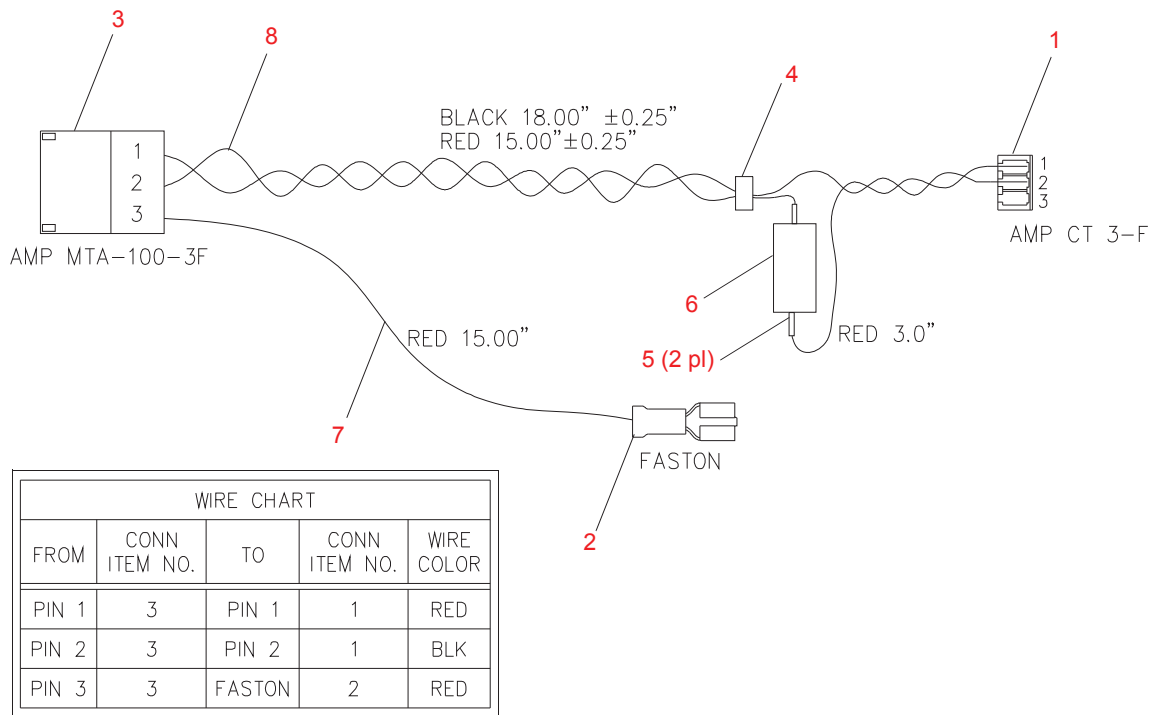


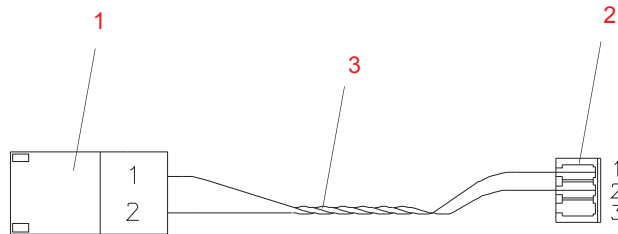
Figure 3-89: Yoke Fan and Relay (Quiet) Cable Assembly - VL3500Q Only

Yoke Fan (Standard) Cable Assembly

25.9678.0758 Rev A (VL3500 Only)

Refer to [Figure 3-90](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6396.3102 | 1 | EA | RECEPT, 2POS MTA100 W/POL TAB BLUE CLSD END |
| 2 | 52.6423.0003 | 1 | EA | HOUSING, 3POS MT RECEIPT, 2MM CT 28-26 AWG |
| 3 | 73.5126.0002 | .5 | FT | WIRE, 26AWG 2COND 300V 80C <BLK-RED> UL1061, 19STRND |



| WIRE CHART | | | | |
|------------|---------------|-------|---------------|------------|
| FROM | CONN ITEM NO. | TO | CONN ITEM NO. | WIRE COLOR |
| PIN 1 | 2 | PIN 1 | 1 | RED |
| PIN 2 | 2 | PIN 2 | 1 | BLK |

Figure 3-90: Yoke Fan (Standard) Cable Assembly - VL3500 Only

Yoke Fan (Quiet) Cable Assembly

25.9678.0759 Rev A (VL3500Q Only)

Refer to Figure 3-90

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6396.3102 | 1 | EA | RECEPT, 2 POS MTA100 W/POL TAB BLUE CLSD END |
| 2 | 52.6423.0003 | 1 | EA | HOUSING, 3 POS MT RECEPT, 2MM CT 28-26 AWG |
| 3 | 55.2186.0001 | 1 | EA | CABLE TIE, .10 X 4" SMALL |
| 4 | 55.2268.0125 | 1 | EA | HEASTRINK, 1/8" CLEAR KYNAR UL 600V 150° C |
| 5 | 60.7440.2002 | 1 | EA | RESISTOR, 5W, 5% 200 OHM WIREWOUND |
| 6 | 73.5126.0002 | .5 | FT | WIRE, 26AWG 2COND 300V 80C <BLK-RED> UL1061, 19STRND |

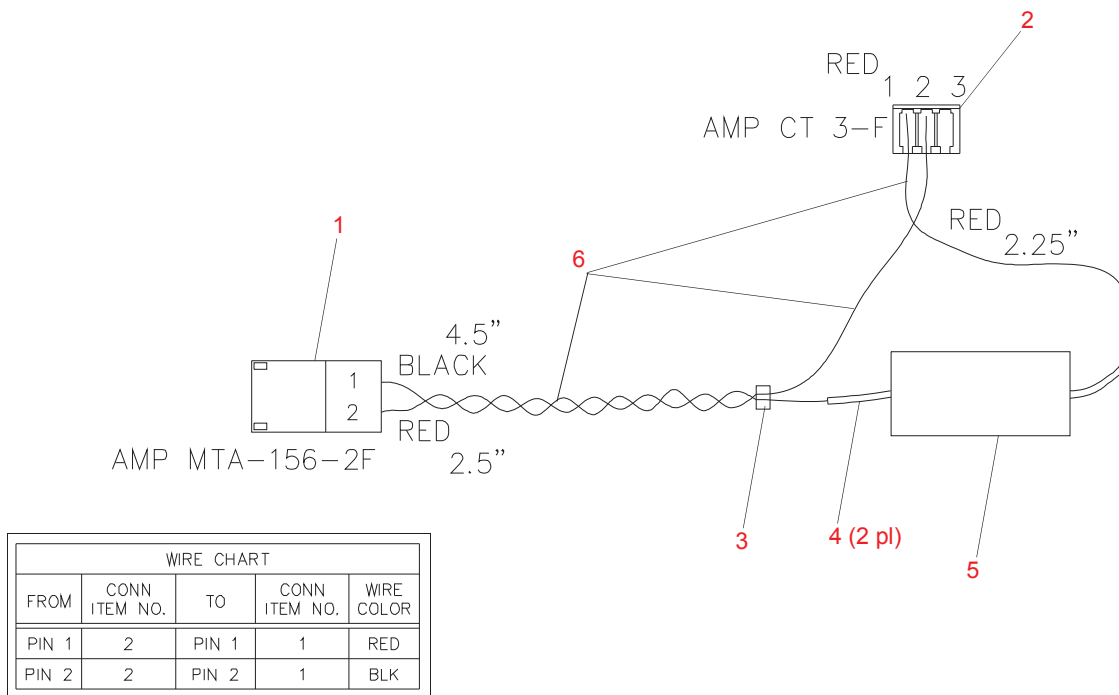


Figure 3-91: Yoke Fan (Quiet) Cable Assembly - VL3500Q Only

Ignitor to Lamp Socket Cable Assembly

25.9678.0789 Rev B

Refer to [Figure 3-92](#).

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.8231.0005 | 2 | EA | TERM, RING #6 BLUE 16-14 AWG REEL PIDG |
| 2 | 52.8274.1614 | 2 | EA | CONN, BUTT SPLICE, 16-14 PIDG |
| 3 | 55.2186.0001 | 3 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 4 | 55.2200.0003 | .33 | FT | HEAT SHRINK |
| 5 | 55.2260.0133 | 6.83 | FT | SLEEVING, FIBERGLASS .133" ID |
| 6 | 73.7100.0001 | 2.84 | FT | WIRE, 16AWG 20KVDC 41/32 STRD 200C SILICONE |
| 7 | 73.7190.0001 | 3.66 | FT | WIRE, 250C DEG C |

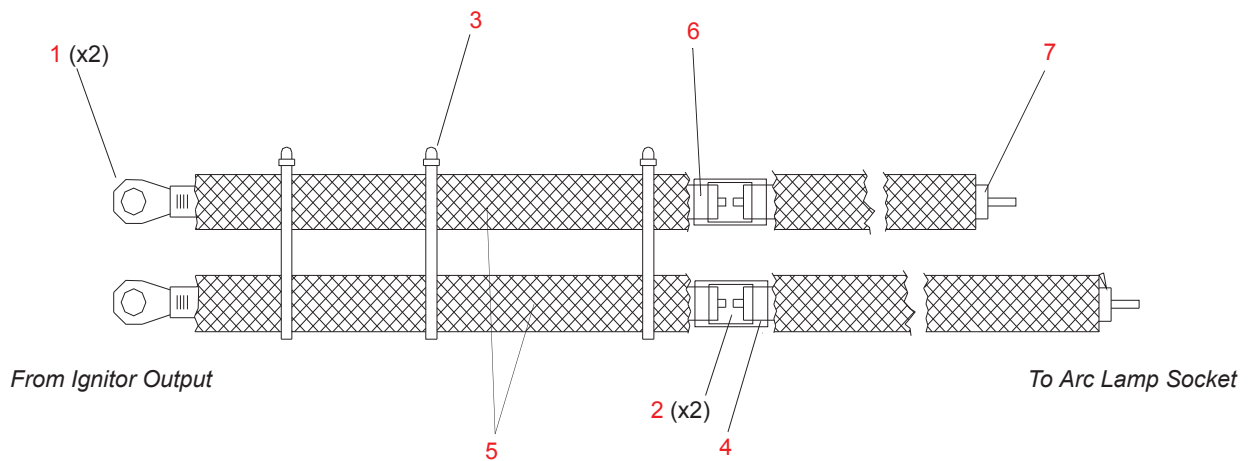


Figure 3-92: Ignitor to Lamp Socket Cable Assembly

Yoke to Head Ground Cable Assembly

25.9678.0689 Rev 0

Refer to [Figure 3-93](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|-------|-----|--|
| 1 | 52.8250.0011 | 2 | EA | TERM, RING #10, 122-10AWG (REEL) |
| 2 | 73.7089.0504 | 15.17 | FT | WIRE, 22AWG 300V 200C TEF GRN/YEL UL1180 |

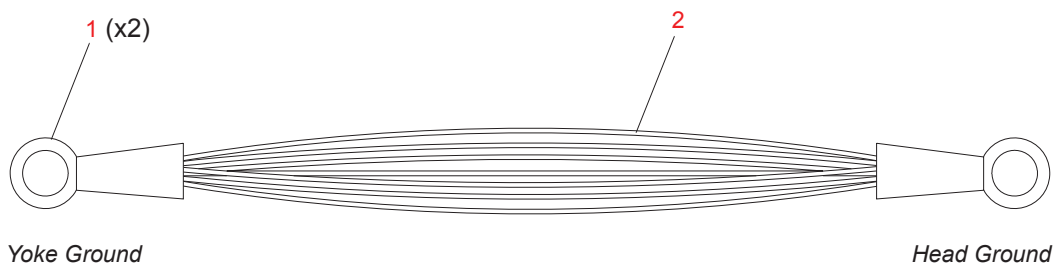


Figure 3-93: Yoke to Head Ground Cable Assembly

Head Controller Cable Assembly

25.9678.1715 Rev A

Refer to [Figure 3-94](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|-------|-----|---|
| 1 | 55.6610.0014 | 1 | EA | CONN HOUSING, 14 POS DBL ROW UNLOADED |
| 2 | 55.6610.0024 | 1 | EA | CONN HOUSING, 24 POS DBL ROW UNLOADED |
| 3 | 55.6610.0034 | 1 | EA | CONN HOUSING, 34 POS DBL ROW UNLOADED |
| 4 | 55.6610.0040 | 3 | EA | CONN HOUSING, 40 POS DBL ROW UNLOADED |
| 5 | 55.6610.0017 | 1 | EA | CONN HOUSING, 50 POS DBL ROW UNLOADED |
| 6 | 52.6224.1014 | 2 | EA | COVER, FRONT 14 POS MT LATCHING |
| 7 | 52.6224.1024 | 1 | EA | COVER, FRONT 24 POS MT LATCHING |
| 8 | 52.6224.1034 | 1 | EA | COVER, FRONT 34 POS MT LATCHING |
| 9 | 52.6224.1040 | 3 | EA | COVER, FRONT 40 POS MT LATCHING |
| 10 | 52.6224.1050 | 1 | EA | COVER, FRONT 50 POS MT LATCHING |
| 11 | 52.6224.2014 | 2 | EA | COVER, BACK 14 POS MT |
| 12 | 52.6224.2024 | 1 | EA | COVER, BACK 24 POS MT |
| 13 | 52.6224.2034 | 1 | EA | COVER, BACK 34 POS MT |
| 14 | 52.6224.2040 | 3 | EA | COVER, BACK 40 POS MT |
| 15 | 52.6224.2050 | 1 | EA | COVER, BACK 50 POS MT |
| 16 | 55.2186.0001 | 11 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 17 | 55.6699.0004 | 1.92 | FT | SLEEVING, 3/4" NOM. DIA. POLY EXP BRAIDED |
| 18 | 73.3026.0009 | 1.83 | FT | WIRE, 26 AWG 300V 80 DEG C PVC WHITE |
| 19 | 73.3026.0329 | 1.83 | FT | WIRE, 26 AWG 3 COND TW 300V PVC <RED-WHT/VIO-BLK> |
| 20 | 73.5116.0123 | 41.42 | FT | WIRE, 24 AWG 4 COND TW 300V 80C <BLK-BRN-RED-ORG> UL1061 |
| 21 | 73.5126.0002 | 3.75 | FT | WIRE, 26 AWG 2 COND TWISTED <RED-BLK> |
| 22 | 73.5126.0007 | 1.83 | FT | WIRE, 26 AWG 2 COND 300V 80C UL1061 19STRND <BLK-V10> |
| 23 | 73.5126.0029 | 1.83 | FT | WIRE, 24 AWG 3 COND TW 300V PVC <RED-WHT-BLK> |
| 24 | 73.5126.0129 | 1.83 | FT | WIRE, 26 AWG 3 COND TW 300V PVC <RED-WHT/RED-BLK> |
| 25 | 73.5126.0229 | 1.83 | FT | WIRE, 26 AWG 3 COND TW 300V PVC <RED-WHT/BLK-BLK> |
| 26 | 73.5126.6009 | 1.92 | FT | WIRE, 26 AWG 6 COND TWISTED <WHT-WHT/BLU-WHT/BLK-WHT/ BRN-WHT/GRN-WHT/RED> |
| 27 | 55.8351.0004 | 226 | EA | CONTACT, 26-22AWG RECP MTE REEL (NOT SHOWN) |

Head Controller Cable Assembly (continued)

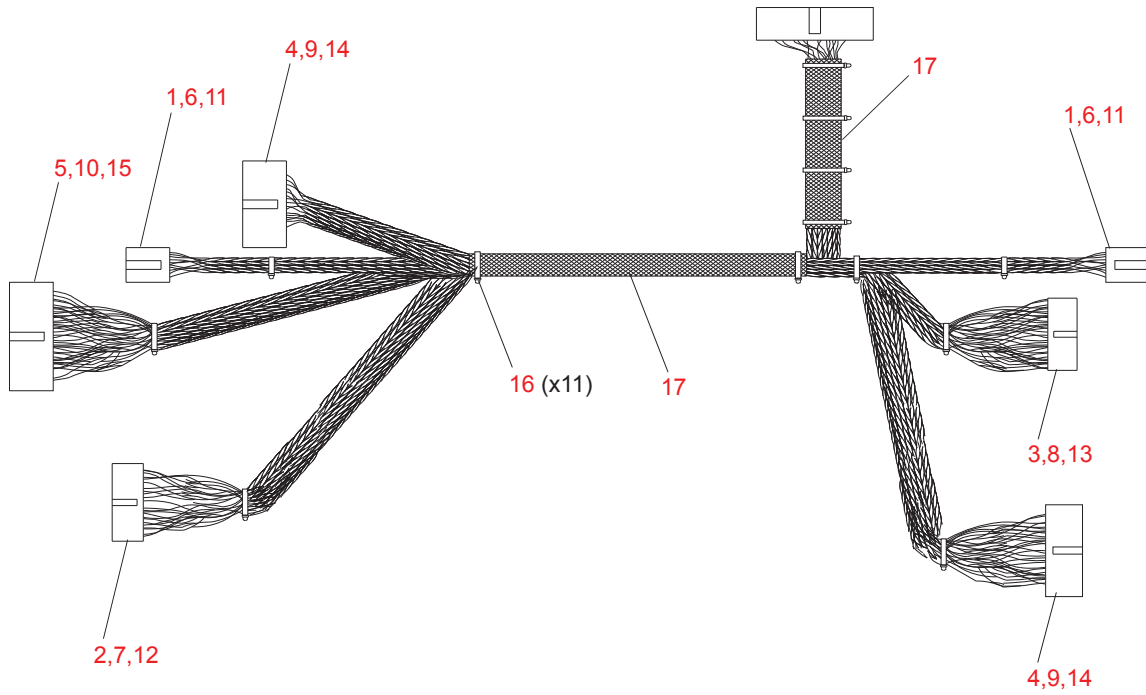


Figure 3-94: Head Controller Cable Assembly

AC Input Pigtail Cable Assembly

25.9678.0810 Rev B

Refer to [Figure 3-95](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6274.2313 | 1 | EA | STRAIN RELIEF, SKINTOP FLEX TYPE PG13 BLK |
| 2 | 52.6401.2321 | 1 | EA | CONN, PLUG "CE MARKED" 20A 250V TWIST-LOCK MALE LINE, 3-WIRE |
| 3 | 52.8231.0005 | 1 | EA | TERM, RING #6 BLUE 16-14 AWG REEL PIDG |
| 4 | 52.8298.1160 | 2 | EA | FERRULE, WIRE 1X16 AWG L2=8MM BLACK |
| 5 | 55.2268.0187 | 0.92 | FT | HEATSHRINK, 3/16" CLEAR KYNAR VDE UL 600V 150DEG C |
| 6 | 55.2268.0500 | 0.13 | FT | HEATSHRINK, 1/2" CLEAR KYNAR VDE UL 600V 150DEG C |
| 7 | 73.9636.0153 | 4.00 | FT | CORDAGE, 1.5/3 750V 60C EURO BLK HD-22 11MMOD |

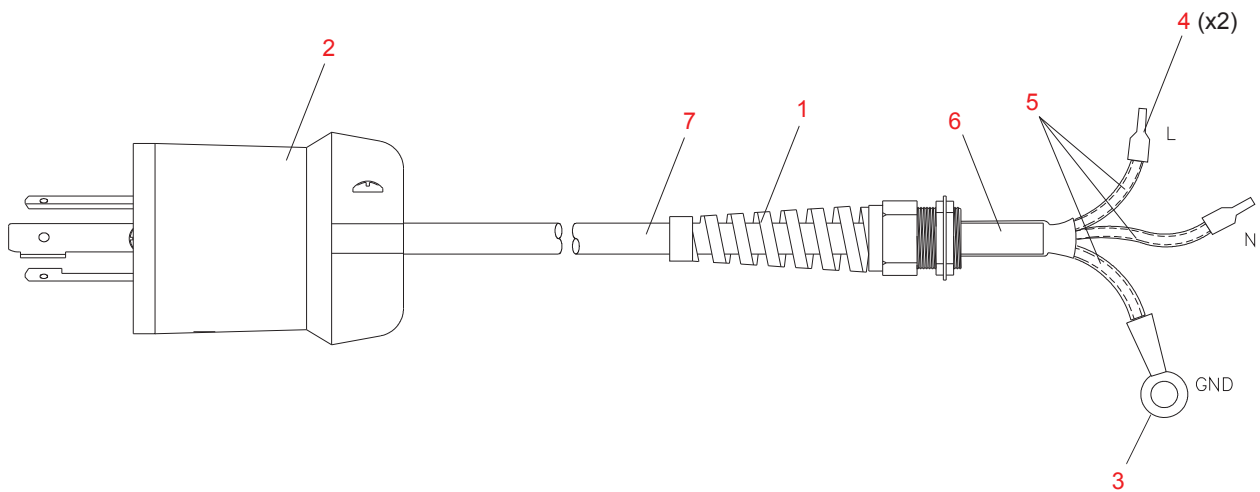


Figure 3-95: AC Input Pigtail Cable Assembly

EMI Filter to Power Switch Cable Assembly

25.9678.0811 Rev C

Refer to [Figure 3-96](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.8313.0001 | 2 | EA | RCPT, FASTON 1/4" 18-14 AWG FLAG DBL CRP (REEL) |
| 2 | 52.8392.0001 | 2 | EA | RECP, FASTON .187"X0.32" 16-14 AWG INS, R/A |
| 3 | 55.2186.0001 | 1 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 4 | 73.6016.0009 | 0.83 | FT | WIRE, 16AWG 600V 105C PVC WHT UL1015 |
| 5 | 73.6016.0010 | 0.83 | FT | WIRE, 16AWG 600V 105C PVC BLK UL1015 |

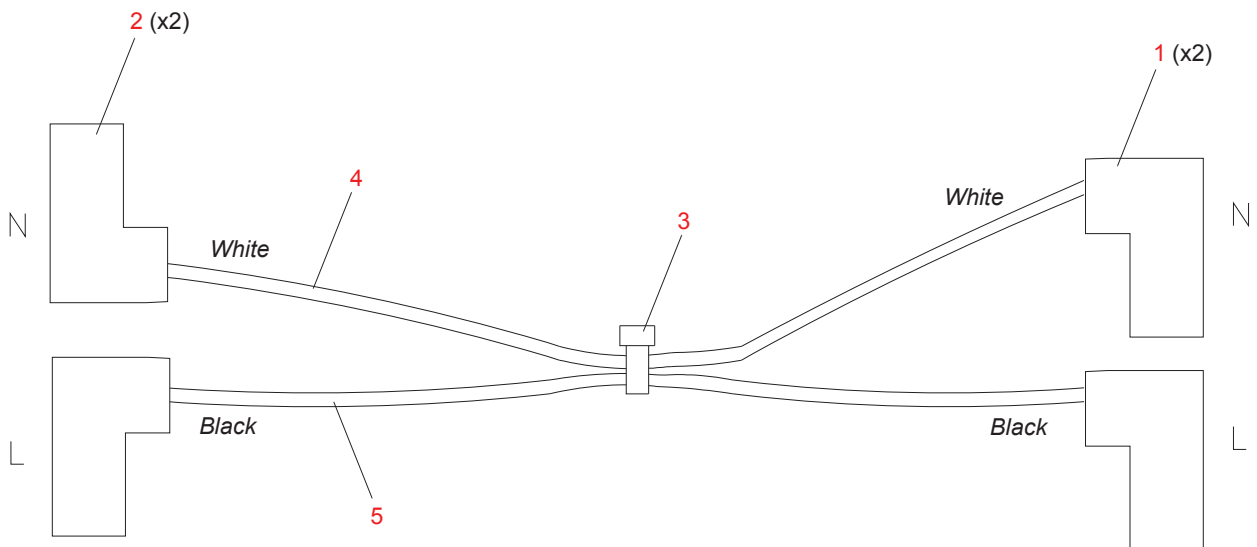


Figure 3-96: EMI Filter to Power Switch Cable Assembly

AC Input Splitter Cable Assembly

25.9678.0812 Rev E

Refer to [Figure 3-97](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6231.0001 | 1 | EA | PLUG HOUSING, MNLOK PLUG 3 POS |
| 2 | 52.8231.0005 | 1 | EA | TERM, RING #6 BLUE 16-14 AWG REEL PIDG |
| 3 | 52.8231.0008 | 2 | EA | TERM, SPADE #6 RED 22-16 AWG INSERT |
| 4 | 52.8392.0001 | 2 | EA | RECP, FASTON .187" X 0.32" 16-14 AWG FLAG DBL CRP |
| 5 | 52.8270.0001 | 2 | EA | CONTACT PIN, 20-14 AWG MNLOK (REEL) |
| 6 | 52.8314.0001 | 1 | EA | PIN, GND 20-14 AWG MNLOK .060"- .130"INS DIA |
| 7 | 55.2186.0001 | 3 | EA | CABLE TIE, .10" WD, 4.00" LG, SMALL |
| 8 | 55.6699.0003 | 1.50 | FT | SLEEVING, 1/2" NOM. DIA. POLY EXP BRAIDED |
| 9 | 73.6016.0009 | 1.83 | FT | WIRE, 16 AWG 600V 105C PVC WHT UL1015 |
| 10 | 73.6016.0010 | 1.83 | FT | WIRE, 16 AWG 600V 105C PVC BLK UL1015 |
| 11 | 73.6016.0504 | 2.08 | FT | WIRE, 16 AWG 600V 105C PVC GRN/YEL UL1015 |
| 12 | 73.6018.0009 | 1.00 | FT | WIRE, 18 AWG 600V 105C PVC WHT UL1015 |
| 13 | 73.6018.0010 | 1.00 | FT | WIRE, 18 AWG 600V 105C PVC BLK UL1015 |

AC Input Splitter Cable Assembly (continued)

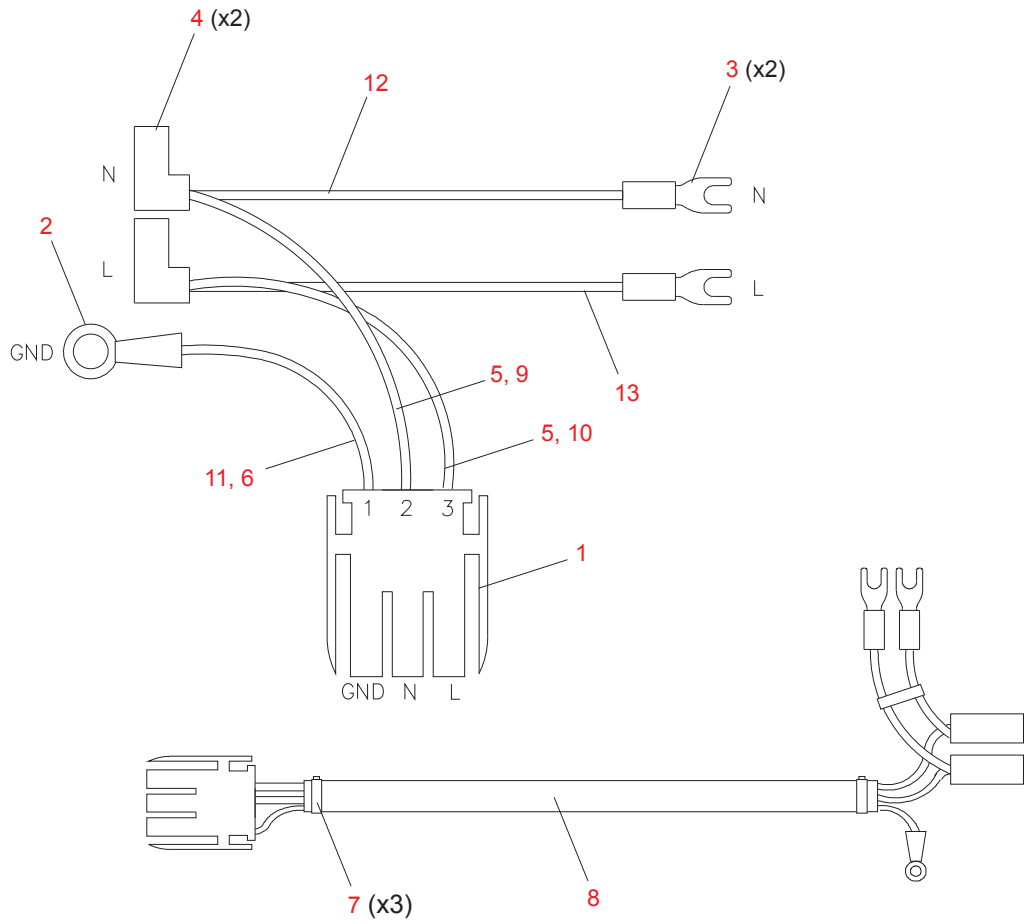


Figure 3-97: AC Input Splitter Cable Assembly

Data I/O Link Cable Assembly

25.9678.0813 Rev A

Refer to [Figure 3-98](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6396.2904 | 1 | EA | RECEPT, 4 POS MTA100 W/POL TAB RED CLSD END |
| 2 | 52.6396.2905 | 1 | EA | RECEPT, 5 POS MTA100 W/POL TAB RED CLSD END |
| 3 | 73.5122.0259 | 2.17 | FT | CBL, 22AWG STRND 4COND PVC INSUL |

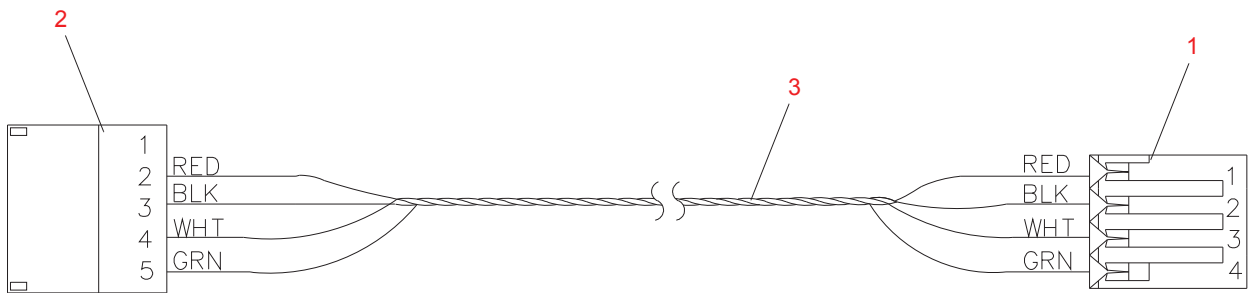


Figure 3-98: Data I/O Link Cable Assembly

Display Cable Assembly

25.9678.0815 Rev E

Refer to [Figure 3-99](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6396.3006 | 2 | EA | RECEPT, 6 POS MTA100 W/POL TAB WHT CLSD END |
| 2 | 73.5116.0123 | 2.0 | FT | WIRE, 24AWG 4COND TW <BLK-BRN-RED-ORN> |

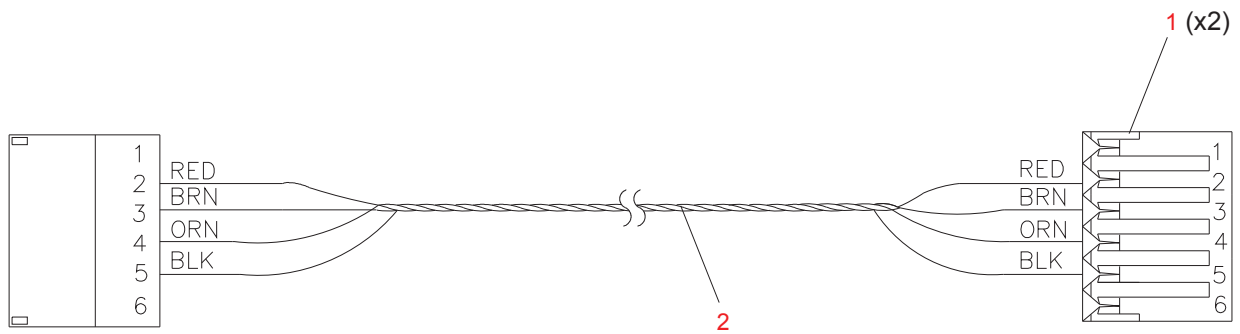


Figure 3-99: Display Cable Assembly

Ballast to Controller Cable Assembly

25.9678.0816 Rev A

Refer to [Figure 3-100](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6396.3002 | 1 | EA | RECEPT, 2 POS MTA100 W/POL TAB WHT CLSD END |
| 2 | 52.6396.3005 | 1 | EA | RECEPT, 5 POS MTA100 W/POL TAB WHT CLSD END |
| 3 | 52.6396.3008 | 1 | EA | RECEPT, 8 POS MTA100 W/POL TAB WHT CLSD END |
| 4 | 73.5124.1289 | 3.67 | FT | WIRE, 24AWG 5COND <BLK-BRN-RED-GRN-WHT> |

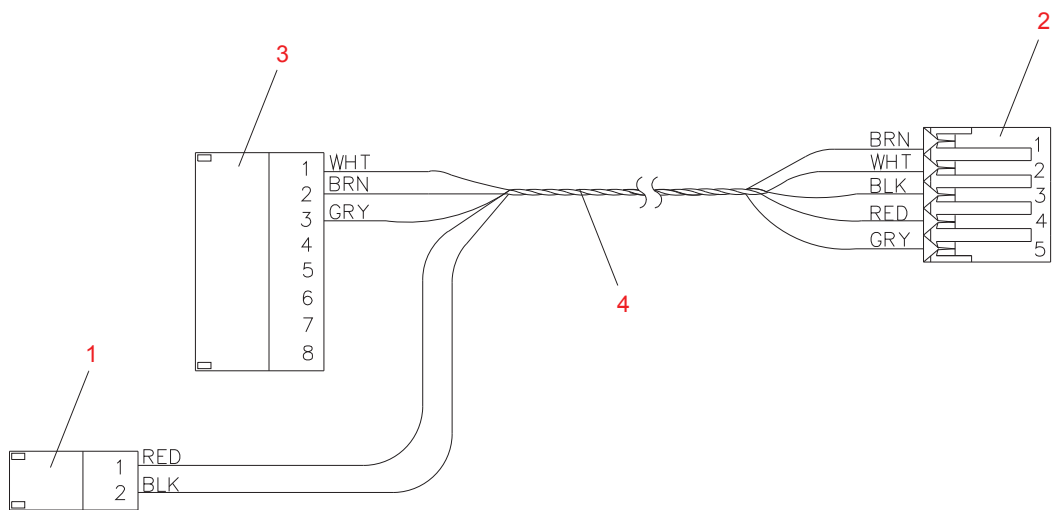


Figure 3-100: Ballast to Controller Cable Assembly

DC Output Cable Assembly

25.9678.0821 Rev E

Refer to Figure 3-101

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.6464.0002 | 1 | EA | CONN, HOUSING, SL-156 2 POS |
| 2 | 52.6464.0003 | 1 | EA | CONN, HOUSING, SL-156 3 POS |
| 3 | 52.8231.0004 | 2 | EA | TERM, RING #6 BLUE 12-10 AWG INSRT |
| 4 | 52.8323.0002 | 4 | EA | CONTACT, CRIMP, 18-22 AWG SL-156 (not shown) |
| 5 | 52.8274.1614 | 2 | EA | CONN BUTT SPLICE 16-14 BLUE .150" OD MAX |
| 6 | 55.2186.0001 | 5 | EA | CABLE TIE, .01" x 4.00" SMALL |
| 7 | 55.6699.0003 | 2.08 | FT | SLEEVING, 1/2" NOM DIA POLY EXP BRAID |
| 8 | 73.3518.0002 | 1.58 | FT | WIRE, 18 AWG 300V 105C PVC RED |
| 9 | 73.3518.0010 | 1.58 | FT | WIRE, 18 AWG 300V 105C PVC BLK |
| 10 | 73.7060.0001 | 2.08 | FT | WIRE, 18 AWG HI VOLT RED YOKE LMP |
| 11 | 73.7060.0002 | 2.08 | FT | WIRE, 18 AWG HI VOLT BLK YOKE LMP |

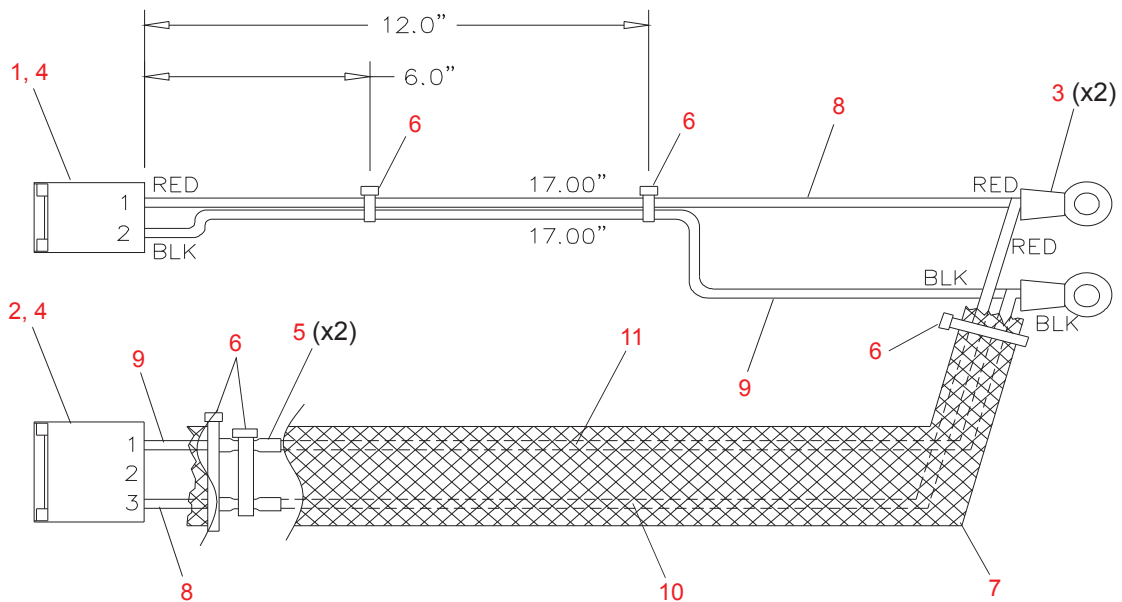


Figure 3-101: DC Output Cable Assembly

Pan/Tilt Control Cable Assembly

25.9678.0818 Rev B

Refer to [Figure 3-102](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|---|
| 1 | 52.6610.0008 | 1 | EA | CONN HOUSING, 20POS DBL ROW UNLOADED |
| 2 | 52.6224.1020 | 1 | EA | COVER, FRONT 20POS MT LATCHING |
| 3 | 52.6224.2020 | 1 | EA | COVER, BACK 20POS MT |
| 4 | 52.6524.0005 | 2 | EA | CONN, HOUSING 5POS RECEPTACLE |
| 5 | 52.6588.0007 | 2 | EA | HOUSING, 7POS XH 250V/3A 2.5MMPITCH -USE SXH CONTACTS |
| 6 | 52.7007.0001 | 6 | EA | CONTACT, 28-22AWG PHOSPHOR BRONZE TIN-PLT SXH |
| 7 | 52.8346.0001 | 10 | EA | CONTACT, 24-30AWG FEMALE CRIMP |
| 8 | 55.2186.0001 | 6 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 9 | 73.5119.0246 | 6.08 | FT | WIRE, 24AWG 3COND TW 600V 200C <RED-YEL-BLU>UL1213 |
| 10 | 73.5124.1289 | 6.17 | FT | WIRE, 24AWG 5COND 300V 80C (BLK-BRN-RED-GRY-WHT) |
| 11 | 52.8351.0004 | 16 | EA | CONTACT, 26-22 AWG RECP MTE (REEL) |

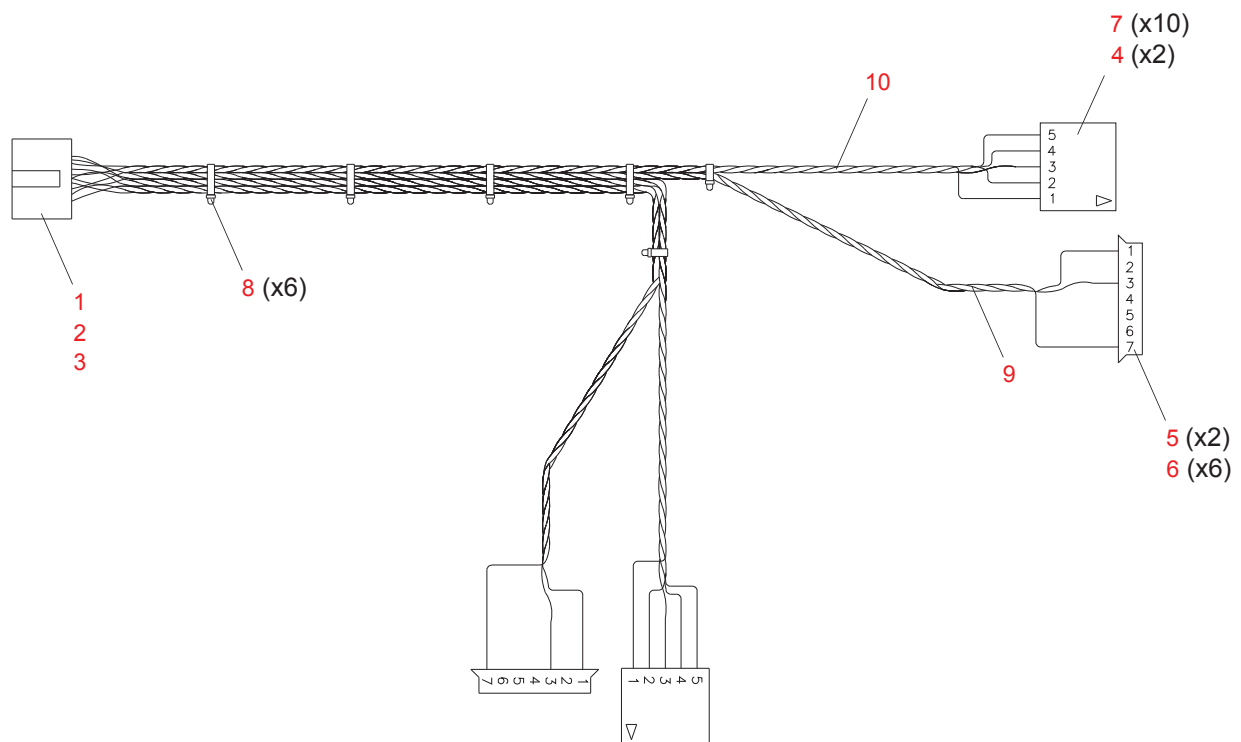


Figure 3-102: Pan/Tilt Control Cable Assembly

Lamp Supply to Relay Cable Assembly

25.9678.0819 Rev D

Refer to [Figure 3-103](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|-------|-----|--|
| 1 | 52.8312.0001 | 4 | EA | RECP, FASTON 1/4" 18-14 AWG INSULATED VO |
| 2 | 55.2186.0001 | 3 | EA | CABLE TIE, .10"WD 4.00"LG SMALL |
| 3 | 55.6699.0003 | 3.75 | FT | SLEEVING, 1/2" NOM. DIA POLY EXP BRAIDED |
| 4 | 73.7089.0000 | 33.25 | FT | WIRE, 22AWG BLK 300V TEFLON STRANDED |
| 5 | 73.7089.0009 | 33.25 | FT | WIRE, 22AWG WHT 300V TEFLON STRANDED |

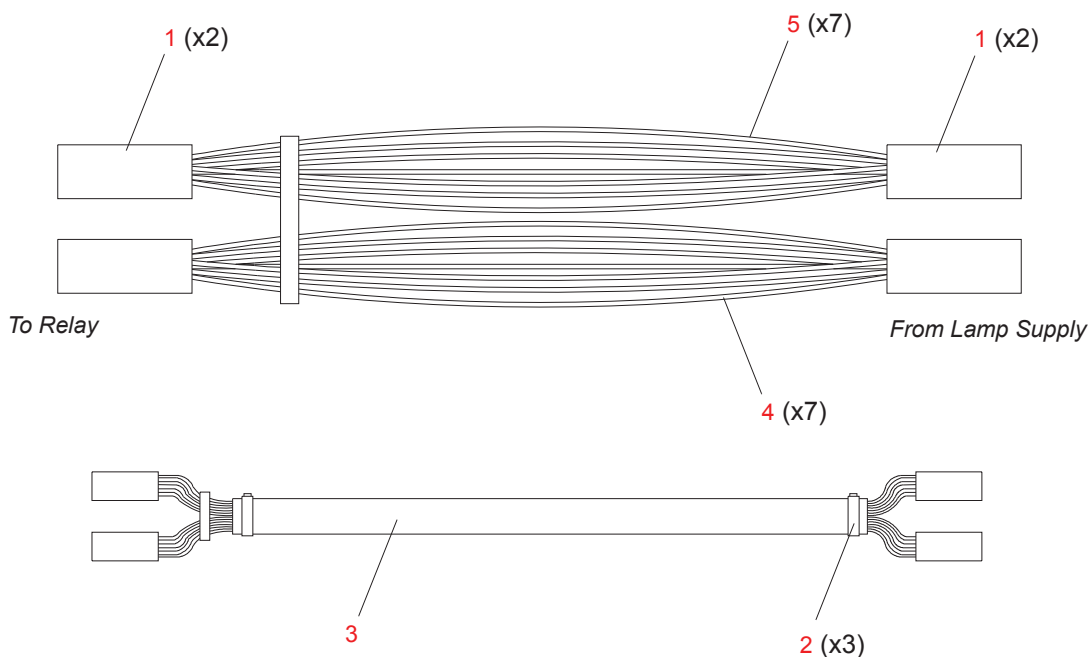


Figure 3-103: Lamp Supply to Relay Cable Assembly

Gobo/Rotate Interconnect Cable Assembly

25.9678.1209 Rev A

Refer to [Figure 3-104](#) and [Figure 3-105](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--------------------------------------|
| 1 | 25.9678.1209 | 1 | EA | CABLE ASSY, GOBO/ROTATE INTERCONNECT |

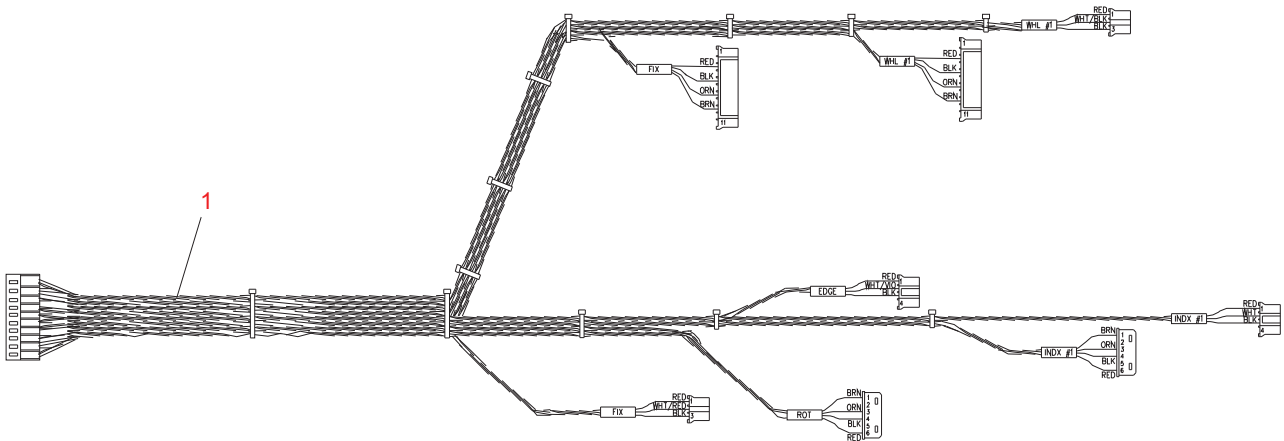
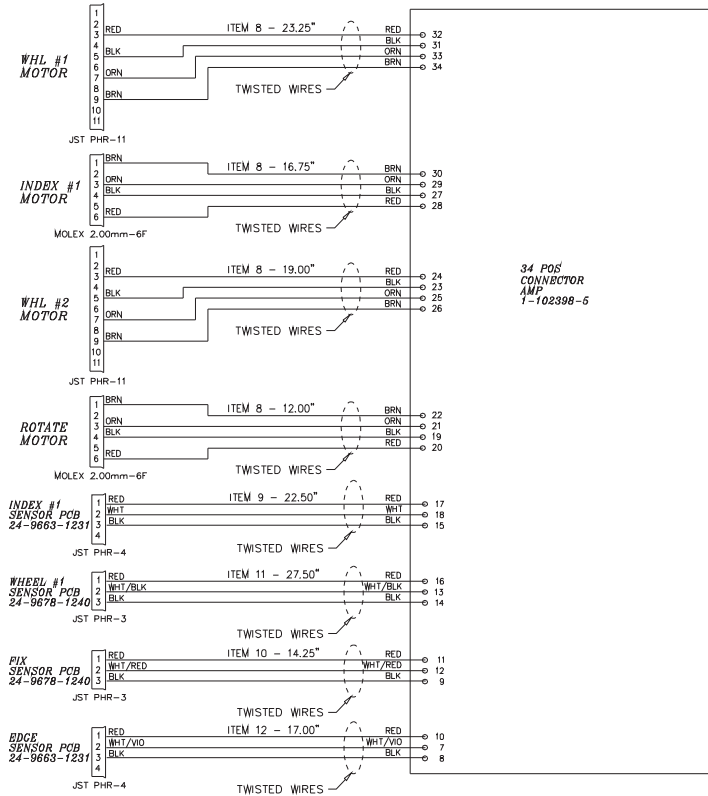


Figure 3-104: Gobo/Rotate Interconnect Cable Assembly

Gobo/Rotate Interconnect Cable Assembly (continued)



34 POS
CONNECTOR
AMP
1-102398-5

| WIRE CHART | | | | | |
|------------|-------|---------------|------------|---------------|-------------------------|
| FROM PIN | TO | CONN ITEM NO. | WIRE COLOR | WIRE ITEM NO. | FUNCTION |
| 33 | PIN 7 | 13 | ORN | 8 | WHEEL #1 MOTOR - 2A |
| 34 | PIN 9 | 13 | BRN | 8 | WHEEL #1 MOTOR - 2B |
| 31 | PIN 5 | 13 | BLK | 8 | WHEEL #1 MOTOR - 1B |
| 32 | PIN 3 | 13 | RED | 8 | WHEEL #1 MOTOR - 1A |
| 29 | PIN 3 | 5 | ORN | 8 | INDEX #1 MOTOR - 2A |
| 30 | PIN 1 | 5 | BRN | 8 | INDEX #1 MOTOR - 2B |
| 27 | PIN 4 | 5 | BLK | 8 | INDEX #1 MOTOR - 1B |
| 28 | PIN 6 | 5 | RED | 8 | INDEX #1 MOTOR - 1A |
| 25 | PIN 7 | 13 | ORN | 8 | FIX MOTOR - 2A |
| 26 | PIN 9 | 13 | BRN | 8 | FIX MOTOR - 2B |
| 23 | PIN 5 | 13 | BLK | 8 | FIX MOTOR - 1B |
| 24 | PIN 3 | 13 | RED | 8 | FIX MOTOR - 1A |
| 21 | PIN 3 | 5 | ORN | 8 | ROTATE MOTOR - 2A |
| 22 | PIN 1 | 5 | BRN | 8 | ROTATE MOTOR - 2B |
| 19 | PIN 4 | 5 | BLK | 8 | ROTATE MOTOR - 1B |
| 20 | PIN 6 | 5 | RED | 8 | ROTATE MOTOR - 1A |
| 17 | PIN 1 | 3 | RED | 9 | VCC_R - INDEX #1 SENSOR |
| 18 | PIN 2 | 3 | WHT | 9 | SENSE - INDEX #1 SENSOR |
| 15 | PIN 3 | 3 | BLK | 9 | GND - INDEX #1 SENSOR |
| 16 | PIN 1 | 2 | RED | 11 | VCC_R - WHEEL #1 SENSOR |
| 13 | PIN 2 | 2 | WHT/BLK | 11 | SENSE - WHEEL #1 SENSOR |
| 14 | PIN 3 | 2 | BLK | 11 | GND - WHEEL #1 SENSOR |
| 11 | PIN 1 | 2 | RED | 10 | VCC_R - FIX SENSOR |
| 12 | PIN 2 | 2 | WHT/RED | 10 | SENSE - FIX SENSOR |
| 9 | PIN 3 | 2 | BLK | 10 | GND - FIX SENSOR |
| 10 | PIN 1 | 3 | RED | 12 | VCC_R - EDGE SENSOR |
| 7 | PIN 2 | 3 | WHT/VIO | 12 | SENSE - EDGE SENSOR |
| 8 | PIN 3 | 3 | BLK | 12 | GND - EDGE SENSOR |
| 5 | - | - | - | - | NOT USED |
| 6 | - | - | - | - | NOT USED |
| 3 | - | - | - | - | NOT USED |
| 4 | - | - | - | - | NOT USED |
| 1 | - | - | - | - | NOT USED |
| 2 | - | - | - | - | NOT USED |

Figure 3-105: Gobo/Rotate Interconnect Cable Assembly Wire Chart

LVS Chassis Ground Cable Assembly

25.9678.1716 Rev A

Refer to [Figure 3-106](#)

| No. | Item | Qty. | UM. | Description |
|-----|--------------|------|-----|--|
| 1 | 52.8231.0005 | 1 | EA | TERMINAL, RING, #6 BLUE, 16-14 AWG REEL PIDG |
| 1 | 52.8231.0008 | 1 | EA | TERMINAL, SPADE, #6 RED, 22-16 AWG INSERT |
| 2 | 73.3516.0504 | 1.08 | FT | WIRE, 16 AWG 300V 105 DEG C PVC <GRN-YEL> UL1569 |

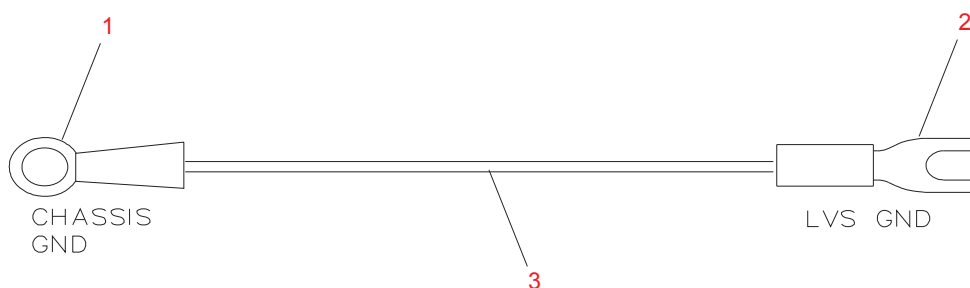


Figure 3-106: LVS Chassis Ground Cable Assembly