

Manua1



Service

VL2500™ Wash Luminaire

02.9676.0022



PHILIPS
VARI***LITE**

VARI*LITE® - VL2500™ WASH LUMINAIRE SERVICE MANUAL

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VARI*LITE® products are protected by one or more of the following patents, and other pending patent applications worldwide:

U. S. Patents No. 6,809,869; 6,796,682; 6,769,792; 6,578,987; 6,550,939; 6,282,027; 6,123,436; 6,113,252; 6,046,861; 6,031,749; 6,011,640; 5,969,868; 5,959,768; 5,934,794; 5,882,107; 5,829,868; 5,825,548; 5,798,619; 5,774,273; 5,769,527; 5,758,956; 5,728,994; 5,640,061; 5,590,954; 5,454,477; 5,432,691; 5,367,444; 5,329,431; 5,307,295; 5,282,121; 5,278,742; 5,209,560; 5,186,536; 5,073,847; 5,010,459; 4,980,806; 4,972,306; 4,800,474; 4,779,176; 4,701,833; 4,602,321;

U. S. Design Patents No. 524,245; 457,678; 452,339; 451,890; 442,944; 439,356; 420,332; 417,300; 415,301; 414,888; 413,995; 377,338; 366,712; 359,574; 350,408; 347,113;

Australia Patents No. 693,691; 683,695; 667,109; 649,264; 646,588; 586,095; 576,400;

Australia Design Patents No. 128,796; 128,795;

Canada Patents No. 2,070,670; 2,050,375; 1,270,675; 1,259,058;

Canada Design Patents No. 81,234; 81,233; 76,046;

European (UK) Patents No. 0 652 400; 0 586 049; 0 565 218; 0 547 732; 0 534 710; 0 495 305; 0 474 202; 0 379 970; 0 253 082; 0 253 081; 0 248 974; 0 192 882;

Germany Patents No. 694 25 943.8; 693 14 122.0; 692 08 615.3; 692 07 692.1; 691 31 478.0; 691 21 029.2; 690 33 385.4; 37 89 166.9; 37 68 727.1; 37 51 804.6; 37 50 201.8; 35 87 270.5;

Germany Design Patents No. M 98 01 745.4; M 96 04 515.9; M 96 04 514.0; M 94 07 689.8; M 94 02 951.2; M 499 03 583.6; M 498 11 203.9; G 93 12 884.3;

Spain Patents No. 2 090 191; 2 084 289; 2 020 960; 0 548 328;

Spain Utility Model Patent No. 2.031.748;

Spain Design Patents No. 0.137.502; 0.137.501; 0.133.573;

Greece Patent No. 910.400.544;

Japan Patents No. 2,843,696; 2,059,669; 2,055,324; 2,002,168; 1,966,525; 1,889,481; 1,792,721; 1,770,241;

Japan Design Patents No. 985,985-1; 985,985; 947,552; 945,436-1; 945,436; 1,106,089; 1,077,598; 1,072,598; 1,060,414; 1,002,123;

Korea Patents No. 76,310; 42,639; 283,770; 181,180;

Korea Design Patents No. 209,896; 209,895;

Mexico Patent No. 180,148;

Taiwan Patents No. 78,726; 66,975; 65,380; 28,275;

United Kingdom Design Registrations No. 2082526; 2072562; 2056387; 2056386; 2042174; 2038212; 2033108; 2029499.

All other brand or product names which may be mentioned in this manual are trademarks or registered trademarks of their respective companies or organizations.

Vari-Lite

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Dallas, Texas 75238

1.877.VARILITE

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Part number: **02.9676.0022 A**

VL2500™ Wash Luminaire Service Manual

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How To Obtain Warranty Service

A copy of the Vari-Lite Limited Warranty was included in the shipping package for this VARI*LITE® product.

To obtain warranty service, please contact customer service at 1-877-VARI-LITE (1-877-827-4548) or customerservice@genlytecontrols.com and request a Return Material Authorization (RMA) for warranty service. You need to provide the model and serial number of the item being returned, a description of the problem or failure and the name of the registered user or organization. If available, you should have your sales invoice to establish the date of sale as the beginning of the warranty period.

Once you obtain the RMA, pack the product in its original packing material along with a copy of your invoice (if available) and write the RMA number legibly on or near the shipping address label. Return the unit, freight prepaid to:

Vari-Lite
10911 Petal Street
Dallas, Texas 75238
Attention: Warranty Service

As stated in the warranty, it is required that the shipment be insured and FOB our service center.

Confidential Property Disclosure

This technical manual is confidential property of Vari-Lite, a Philips group company. All information contained herein is the sole and exclusive property of Vari-Lite and may not be used, disclosed, or reproduced in any manner without the prior written consent of Vari-Lite. The information furnished in this manual is for informational use only and is subject to change without notice. Vari-Lite assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

Compliance Notice

FCC This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with Vari-Lite system, service, and safety guidelines, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

Declaration of Conformity

We declare, under our sole responsibility, that this product complies with the relevant clauses of the following standards and harmonized documents:

Safety (by Council Directive 73/23/EEC)

EN60598-1: 2000

EN60598-2-17: 1989/A2:1991

EMC (by Council Directive 89/336/EEC)

EN61000-6-4: 2001

We certify that VARI*LITE® products conform to the requirements of European council directives as stated above.

Manual Revision History

VERSION	DATE
First Edition	09-December-2004
Revision A	04-June-2009

Safety Notice

It is extremely important to read ALL safety information and instructions provided in this manual and any accompanying documentation before installing and operating the products described herein. Heed all cautions and warnings during installation and use of this product.

Safety symbols used throughout this manual are as follows:



CAUTION advising of potential damage to product.



WARNING advising of potential injury or death to persons.

GENERAL INFORMATION PERTAINING TO PROTECTION AGAINST ELECTRICAL SHOCK, FIRE, EXPOSURE TO EXCESSIVE UV RADIATION, AND INJURY TO PERSONS CAN BE FOUND BELOW.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST FIRE

1. VARI*LITE® luminaires have been designed for use only with certain Philips and Osram HID lamps. Note lamp type (MSR700HR, etc.) before replacing lamps. Installing another type of lamp may be hazardous.
2. Luminaires may be mounted on any type of surface as long as mounting instructions are followed. See instructions detailed in this manual.
3. Replace fuses with same type and rating only.
4. Note distance requirement from combustible materials or illuminated objects for VARI*LITE® luminaires.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST ELECTRICAL SHOCK

1. VARI*LITE® luminaires are designed for dry locations only. Exposure to rain or moisture may damage luminaire.
2. Disconnect power before servicing any VARI*LITE® equipment.
3. Servicing to be performed by qualified personnel only.

**WARNING:
INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST EXCESSIVE
EXPOSURE TO UV RADIATION**

1. Many VARI*LITE® luminaires use an HID type lamp that produces UV radiation. DO NOT look directly at lamp.
2. It is hazardous to operate luminaires without lens or shield. Shields, lenses, or ultraviolet screens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired. For example, by cracks or deep scratches.

**WARNING:
INSTRUCTIONS FOR PROTECTION AGAINST INJURY TO PERSONS**

1. Exterior surfaces of the luminaire will be hot during operation. Use appropriate safety equipment (gloves, eye protection, etc.) when handling and adjusting hot equipment and components.
2. Luminaires will have a hot lamp when operating. Disconnect power and allow lamp to cool before replacing.
3. Arc lamps emit ultraviolet radiation which can cause serious skin burn and eye inflammation. Additionally, arc lamps operate under high pressure at very high temperatures. Should the lamp break, there can exist a danger of personal injury and/or fire from broken lamp particles being discharged.
4. Wear eye protection when relamping.
5. Appropriate safety equipment (gloves, eye protection) should be used when handling damaged lamps.
6. If lamp is touched with bare hands, clean lamp with denatured alcohol and wipe with lint-free cloth before installing or powering up the luminaire.
7. The lamp shall be changed if it has become damaged or thermally deformed.

**WARNING:
RF INTERFERENCE**

1. This is a Class A product. In a domestic environment this product may cause radio interference, in which case, the user may be required to take adequate measures.

ARC LAMP CHARACTERISTIC CONSIDERATIONS

1. Arc lamps require a period of time to relight after a power interruption or a severe voltage dip. In some cases, lamp will automatically relight after it has cooled depending on Lamp Power-Up State (Lamp ON/ Lamp OFF) system configuration setting.
2. Burning position is Universal.

Sicherheitshinweise

Es ist äußerst wichtig, ALLE Sicherheitsinformationen und -hinweise in diesem Handbuch und dem beiliegenden Informationsmaterial zu lesen, bevor Sie die hierin beschriebenen Produkte installieren bzw. bedienen. Halten Sie bei der Installation und dem Einsatz dieses Produkts alle Warnhinweise und Vorsichtsmaßnahmen ein.

Folgende Sicherheitssymbole werden in diesem Handbuch verwendet:



VORSICHT - weist auf möglichen Produktschaden hin.



WARNUNG - weist auf mögliche Körperverletzung und Lebensbedrohung hin.

NACHSTEHEND FINDEN SIE ALLGEMEINE HINWEISE ÜBER SICHERHEITSVORKEHRUNGEN GEGEN ELEKTROSCHOCK, FEUER, ÜBERHÖHTE UV-STRAHLUNG UND KÖRPERVERLETZUNGEN.

WARNUNG:

HINWEISE ZUM FEUERSCHUTZ

1. VARI*LITE®-Scheinwerfer sind ausschließlich für den Einsatz mit bestimmten Philips und Osram HID-Lampen geeignet. Achten Sie auf den Lampentyp (MSR700HR, etc.), bevor Sie die jeweiligen Lampen ersetzen. Die Installation eines anderen Lampentyps kann gefährlich sein.
2. Scheinwerfer können auf jeder beliebigen Oberfläche montiert werden, solange Sie die Montageanweisungen befolgen. Detaillierte Hinweise finden Sie in diesem Handbuch.
3. Ersetzen Sie Sicherungen nur mit Sicherungen vom gleichen Typ und gleicher Stärke.
4. Beachten Sie die Einhaltung des erforderlichen Sicherheitsabstandes der VARI*LITE®-Scheinwerfer von brennbarem Material oder beleuchteten Objekten.

WARNUNG:

HINWEISE ZUM SCHUTZ GEGEN ELEKTROSCHOCK

1. VARI*LITE®-Scheinwerfer eignen sich ausschließlich für trockene Standorte. Regen oder Feuchtigkeit können die Scheinwerfer beschädigen.
2. Unterbrechen Sie die Stromzufuhr, bevor Sie mit der Arbeit an VARI*LITE®-Geräten beginnen.
3. Die Geräte sollten nur von qualifiziertem Personal gewartet werden.

WARNUNG:

HINWEISE ZUM SCHUTZ GEGEN ÜBERHÖHTE UV-STRAHLUNG

1. Viele VARI*LITE®-Scheinwerfer verwenden einen HID-Lampentyp, der UV-Strahlen abgibt. SCHAUEN SIE NICHT direkt in die Lampe.

2. Es ist gefährlich, Leuchten ohne Linsen oder Blenden zu bedienen. Blenden, Linsen oder Ultraviolettsschirme müssen ausgetauscht werden, sofern deren Schutzwirkung durch sichtbare Beschädigung (z. B. Sprünge oder Schrammen) eingeschränkt ist.

WARNUNG:

HINWEISE ZUM SCHUTZ GEGEN KÖRPERVERLETZUNGEN

1. Bei Betrieb sind die Außenflächen der Scheinwerfer heiß. Verwenden Sie bei der Bedienung von aufgeheizter Apparatur die jeweils geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz etc.).
2. Bei Betrieb der Scheinwerfer ist die Lampe heiß. Unterbrechen Sie die Stromzufuhr und lassen Sie die Lampe abkühlen, wenn Sie diese austauschen.
3. Bogenlampen senden ultraviolette Strahlen aus, die Hautverbrennungen und Augenentzündungen verursachen können. Der Betrieb von Bogenlampen erfolgt unter Hochdruck und bei hohen Temperaturen. Sollte die Lampe zerbrechen, besteht die Gefahr von Körperverletzung bzw. von Feuer, das von Lampenteilen ausgelöst werden kann.
4. Tragen Sie beim Austausch der Lampen einen Augenschutz.
5. Die geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz) sollte beim Umgang mit beschädigten Lampen verwendet werden.
6. Wenn die Lampe mit bloßen Händen berührt wird, reinigen Sie sie mit denaturiertem Alkohol und einem flusenfreien Tuch, bevor Sie die Scheinwerfer installieren oder in Betrieb nehmen.
7. Wenn die Lampe beschädigt oder durch Hitzeeinwirkung deformiert ist, muß diese ausgetauscht werden.

WARNUNG:

HF-INTERFERENZ

1. Es handelt sich um ein Produkt der Klasse A. In einer Wohnumgebung kann das Produkt Hochfrequenzstörungen verursachen. In diesem Fall müssen eventuell geeignete Maßnahmen getroffen werden.

BESONDERHEITEN VON BOGENLAMPEN

1. Bogenlampen benötigen eine gewisse Zeitdauer, um nach einem Stromausfall oder einem Spannungsgefälle wieder aufzuleuchten. In einigen Fällen wird die Lampe nach Abkühlung automatisch wieder aufleuchten, je nach der Systemkonfigurationseinstellung des Lampeneinschaltungsstatus (Lamp ON/ Lamp OFF).
2. Die Brennposition ist Universal.

Notes de sécurité

Avant de procéder à l'installation des produits décrits dans ce guide et de les mettre en marche, il est extrêmement important de lire TOUS les renseignements et TOUTES les directives de sécurité contenues dans ce guide ainsi que toute documentation jointe. Tenir compte de tous les avertissements et suivre toutes les précautions pendant l'installation et l'utilisation de cet appareil.

Les symboles de sécurité utilisés dans ce guide sont les suivants :



ATTENTION Ce symbole annonce que l'appareil risque d'être endommagé.



AVERTISSEMENT Ce symbole annonce qu'il y a risque d'accident grave ou même fatal.

CETTE SECTION CONTIENT DES INFORMATIONS GÉNÉRALES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES, LES INCENDIES, L'EXPOSITION EXCESSIVE AUX RAYONS UV ET TOUT AUTRE ACCIDENT POUVANT ENTRAÎNER DES BLESSURES.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE LES INCENDIES

1. Les luminaires VARI*LITE® ont été conçus pour être utilisés uniquement avec certaines lampes Philips et Osram HID. Vérifier le type de lampe (MSR700HR, etc.) avant de remplacer les lampes. L'installation d'un autre type de lampe peut poser un danger.
2. Les luminaires peuvent être fixés sur tout type de surface tant que les directives de montage sont respectées. Voir les explications détaillées dans ce guide.
3. Ne remplacer les fusibles qu'avec ceux du même type, ayant les mêmes caractéristiques.
4. Vérifier la distance à respecter entre les matériaux combustibles ou les objets illuminés et les luminaires VARI*LITE®.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES

1. Les luminaires VARI*LITE® sont conçus pour une utilisation au sec uniquement. Une exposition à la pluie et à l'humidité risque d'endommager le luminaire.
2. Débrancher l'appareil avant de procéder à la révision de tout matériel VARI*LITE®.
3. Les révisions doivent être effectuées uniquement par des personnes qualifiées.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE UNE EXPOSITION EXCESSIVE AUX RAYONS UV

1. Plusieurs luminaires VARI*LITE® utilisent une lampe de type HID qui produit des rayons UV. NE PAS fixer son regard sur la lampe.

2. L'utilisation des luminaires sans lentille ou blindage pose des risques. Tous blindages, lentilles ou écrans ultraviolet visiblement endommagés au point que leur efficacité en est affectée doivent être remplacés, par exemple s'il y a des fissures ou de profondes rayures.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE LES ACCIDENTS POUVANT ENTRAÎNER DES BLESSURES

1. Les surfaces externes du luminaire deviennent brûlantes quand l'appareil est en marche. Pour manœuvrer ou ajuster des appareils brûlants et leurs composants, se protéger suffisamment (gants, protection pour les yeux, etc.).
2. La lampe du luminaire est brûlante lorsqu'il est en marche. Débrancher le courant et attendre que la lampe ait refroidi avant de la remplacer.
3. Les lampes à arc émettent des rayons ultraviolets pouvant causer de graves brûlures sur la peau et une inflammation des yeux. De plus, les lampes à arc fonctionnent sous haute tension à de très hautes températures. Si la lampe se casse, les particules de la lampe cassée peuvent causer blessures et/ou incendie en s'éparpillant.
4. Se protéger les yeux pour remplacer la lampe.
5. Utiliser des appareils de protection appropriés (gants, protection des yeux) pour manier des lampes endommagées.
6. Si la lampe a été touchée avec des mains nues, la nettoyer avec de l'alcool dénaturé et l'essuyer avec un chiffon non-pelucheux avant d'installer ou de brancher le luminaire.
7. Si la lampe a été endommagée ou a reçu une déformation thermique, elle doit être remplacée.

AVERTISSEMENT:

INTERFÉRENCE RF

1. Cet appareil est de Classe A. Dans un environnement domestique, cet appareil peut causer des interférences radio, et si c'est le cas, l'utilisateur peut avoir à prendre des mesures adéquates.

CONSIDÉRATIONS DES CARACTÉRISTIQUES DE LAMPES À ARC

1. Après une interruption de courant ou une baisse importante de voltage, les lampes à arc mettent du temps avant de se rallumer. Dans certains cas, la lampe se rallumera automatiquement après s'être refroidie. Cela dépend de la manière dont le système est réglé pour le statut de mise en marche de la lampe (Lamp ON/ Lamp OFF).
2. La position Brûler est Universelle.

Aviso sobre Seguridad

Es muy importante leer TODA la información e instrucciones sobre seguridad que se indica en este manual así como en los documentos adjuntos antes de instalar y operar los productos descritos. Se debe prestar atención a todos los avisos y advertencias durante la instalación y uso de este producto.

Los símbolos de seguridad usados en este manual son los siguientes:



CUIDADO, indica posibles daños al producto.



ADVERTENCIA, indica posibles lesiones o muerte a las personas.

LA INFORMACIÓN GENERAL RELACIONADA A LA PROTECCIÓN CONTRA GOLPES DE CORRIENTE ELÉCTRICA, INCENDIO, EXPOSICIÓN EXCESIVA A RADIACIÓN ULTRA VIOLETA Y LESIONES A LAS PERSONAS SE PUEDE ENCONTRAR SEGUIDAMENTE:

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA INCENDIO

1. Las luminarias VARI*LITE® han sido diseñadas para ser usadas solamente con algunas lámparas HID Philips y Osram. Tome nota del tipo de lámpara (MSR700HR, etc.) antes de reemplazarla. Instalación de otro tipo de lámpara puede ser peligroso.
2. Las luminarias se pueden instalar en cualquier tipo de superficie siempre que se sigan las instrucciones de instalación. Vea las instrucciones detalladas en este manual.
3. Reemplaze los fusibles solamente con los del mismo tipo y especificación.
4. Tome nota de los requerimientos de distancia de materiales combustibles u objetos iluminados para las luminarias VARI*LITE®.

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA CHOQUE ELÉCTRICO

1. Las luminarias VARI*LITE® están diseñadas solamente para lugares secos. La exposición a la lluvia o humedad pueden dañar la luminaria.
2. Desconecte la energía antes de dar servicio a cualquier equipo de VARI*LITE®.
3. El servicio debe ser realizado solamente por personal calificado.

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA LA EXPOSICIÓN EXCESIVA DE RADIACIÓN ULTRA VIOLETA

1. Muchas luminarias VARI*LITE® usan un tipo de lámpara HID que produce radiación UV. NO mire directamente a la lámpara.
2. Es peligroso operar luminarias sin lentes o protectores. Debe cambiar los protectores, lentes o pantallas ultravioletas si se aprecia que han sido dañadas, y que su efectividad pudiera estar deteriorada. Por ejemplo, si tuvieran rajaduras o raspaduras profundas.

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTRA LESIONES DE PERSONAS

1. Las superficies exteriores de las luminarias están calientes durante su operación. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando haga ajustes en el equipo y componentes que están calientes.
2. Cuando las luminarias están en operación la lámpara estará muy caliente. Desconecte la energía y deje que la lámpara se enfríe antes de reemplazarla.
3. Las lámparas de arco emiten radiaciones ultravioletas que pueden ocasionar serias quemaduras a la piel e inflamación a los ojos. Además, las lámparas de arco operan a alta presión y muy alta temperatura. Si la lámpara se rompe, puede existir el peligro de lesiones al personal o un incendio ocasionado por las partículas de la lámpara rota que se caen.
4. Use protección para los ojos cuando vuelve a colocar una lámpara nueva.
5. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando trabaje con lámparas dañadas.
6. Si toca la lámpara con las manos, limpie la lámpara con alcohol desnaturalizado y con tela sin pelusas antes de instalar o volver a conectar la luminaria.
7. Cambie la lámpara si está dañada o deformada termicamente.

ADVERTENCIA:

INTERFERENCIA RF

1. Este es un producto de Clase A. En el ambiente de la casa este producto puede ocasionar radiointerferencia, en cuyo caso, el usuario debe tomar las medidas adecuadas.

CONSIDERACIONES SOBRE LAS CARACTERÍSTICAS DE LA LÁMPARA DE ARCO

1. Las lámparas de arco requieren un período de tiempo para volver a iluminarse después de una interrupción de energía o de una severa caída de voltaje. En algunos casos, la lámpara se volverá a iluminar en forma automática después que se ha enfriado dependiendo de la configuración del sistema de energía de la lámpara (Lamp ON / Lamp OFF) (L encendida / L apagada).
2. La posición de encendido es universal.

安全性に関する注意事項

ここに記載されている製品を取り扱う場合は、まず本マニュアルおよび付属のマニュアルの安全性に関する情報と説明をすべてお読みください。また、実際に本製品を取り付けたり使用する際には、すべての注意事項および警告に留意して作業してください。

本マニュアルでは、以下の安全マークを使用しています。



注意：製品に損傷を与える危険性があります。



警告：人身事故につながる危険性があります。

感電、火災、UV放射に対する過度の露出、および人身事故を防ぐための一般的な情報については、以下の説明をお読みください。

警告：

火災の発生を防ぐためのヒント

1. VARI*LITE® 照明器具は、Philips および Osram の HID ランプを使用するように設計されています。ランプを交換する際は、ランプの種類 **MSR700HR** (MSR700HR など) を確認するようにしてください。他の種類のランプを取り付けると危険です。
2. 照明器具は、本マニュアルの指示に従って操作するかぎり、どのようなタイプの表面にでも取り付けることができます。詳細については、本マニュアルを参照してください。
3. ヒューズを交換する場合は、同じヒューズ（同じ種類、同じクラス）を使用してください。
4. VARI*LITE® 照明器具は、可燃性物質または他の光源から必要な距離だけ離して配置してください。

警告：

感電を防ぐためのヒント

1. VARI*LITE® 照明器具は、乾燥した環境で使用するように設計されています。雨で濡れる場所や湿気の多い場所に取り付けると、照明器具が傷むことがあります。
2. VARI*LITE® 照明器具を修理点検する場合は、必ず先に電源を切ってください。
3. 照明器具の修理点検は、資格を持つ技師のみが行うようにしてください。

警告：

過度の UV 放射にさらされないためのヒント

1. VARI*LITE® 照明器具の多くは、UV 放射を生ずる HID タイプのランプを使用しています。ランプを直視することは避けてください。
2. レンズまたはシールドを使わずに照明器具を点灯すると危険です。レンズ、シールド、紫外線画面は、ひび割れや深い引っかき傷などにより、その効力が損なわれるようになったら取り替えるようにします。

警告：

人身事故を防ぐためのヒント

1. 照明器具が点灯しているときは、その外側が熱くなります。熱くなった器具やコンポーネントを取り扱う際には、適切な防具（手袋や保護用眼鏡）を使用してください。
2. 照明器具が点灯しているときは、そのランプが熱くなります。ランプを交換する場合は、照明器具の電源を切り、ランプの温度が下がるまで待ってください。ランプの裏ぶたをあけると、遮断スイッチが働いて、ランプの電源が切れる場合があります。
3. アーク灯は紫外線を放射します。この紫外線によって、ひどい火傷を負ったり、目の炎症を起こすことがあります。さらに、アーク灯は、高圧高温の状態で光を発します。そのため、万一アーク灯が破損すると、飛び散った破片で人身事故や火災が発生する危険性があります。
4. 再点灯するときには、保護用眼鏡を着用してください。
5. 損傷したランプを取り扱う場合は、適切な防具（手袋や保護用眼鏡）を着用してください。
6. 手袋を着用せずに直接手でランプを触った場合は、変性アルコールを使ってランプをきれいにし、糸くずの出ない布で拭いてから照明器具を取り付け、電源を入れるようにします。
7. 傷がついたランプや熱によって変形したランプは取り替えてください。

警告：

RF 干渉

1. 本製品は Class A に分類されます。本製品は、家庭環境において無線干渉を起こす可能性があります。その場合、使用者は適切な処置を取らなければならないことがあります。

アーク灯の特性

1. 停電後または大きな電圧ディップ後にアーク灯を再点灯する場合は、しばらく時間をおくようにしてください。Lamp Power-Up State (L ON/ L OFF) システム設定によっては、温度が下がったときに自動的に再点灯される場合もあります。
2. アーク灯は点光源です。

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Introduction

About This Manual

This manual provides descriptions, repair procedures, and illustrated parts breakdowns for all configurations of the VL2500™ Wash Luminaire. The manual is intended for use by Vari-Lite personnel and by Vari-Lite's customers/clients.



WARNING: It is important to read ALL accompanying safety and installation instructions to avoid damage to the product and potential injury to yourself or others.

This manual covers the following models:

Model	Part Number	Source
VL2500™ Wash Luminaire	20.9676.0002	700W Arc



Note: Performing maintenance procedures contained in this manual may void the product warranty. Refer to the Vari-Lite, Inc. Limited Warranty card included in the shipping package for this VARI*LITE® product.

Additional Documentation

A support web page for VL2500™ series luminaires is available at www.vari-lite.com (follow the Support link).

A separate users manual is available for installation and operation of the VL2500™ wash luminaire:

- VL2500™ Wash Luminaire Users Manual (02.9676.0021).

Customer Service

Our Goal

At Vari-Lite, we are committed to providing you the highest quality in customer service. Our comprehensive resources are available to help your business succeed and ensure you get the full benefit of being a Vari-Lite customer. Whether your needs are telephone/troubleshooting assistance, product training or technical service, our full-time staff of experienced professionals are on-hand to provide support.

How to Reach Us

For assistance in your area, call the dealer from which your product(s) were purchased.

or

Contact an Authorized Service Center.

or

Contact the Vari-Lite Customer Service Department, 9am - 6pm CST Monday through Friday, at the following:

phone: 1-877-VARI-LITE (1-877-827-4548) or +1-214-647-7880

fax: +1-214-647-8038

email: customerservice@genlytecontrols.com

Additional Resources

For additional resources and documentation, please visit our website at: www.vari-lite.com and follow the Support link.

Technical Bulletins / Technical Notices

Technical Bulletins concerning the latest changes to VARI*LITE® equipment are issued from Vari-Lite. They are documentation supplements that contain procedures for equipment upgrades, retrofits, and repairs not found in the existing manuals. Technical bulletins are integrated into the appropriate equipment manuals as those manuals are revised.

Technical Notices are non-procedural documents that contain information regarding product support issues, software updates, and documentation corrections. All technical notices begin with the prefix TN and are numbered sequentially.

Technical Bulletins, Software Updates, support, and other information is available online at <http://www.vari-lite.com/> under the Support Section.

To request access to the password-protected support areas, please contact Vari-Lite Customer Service at 1-877-827-4548 (+1-214-647-7880) or customerservice@genlytecontrols.com.

CHAPTER 1.

Description

This chapter provides an overview of luminaire features, components and operations.

- **Features**
- **Major Components**
- **Principles of Operation**



SERVICE

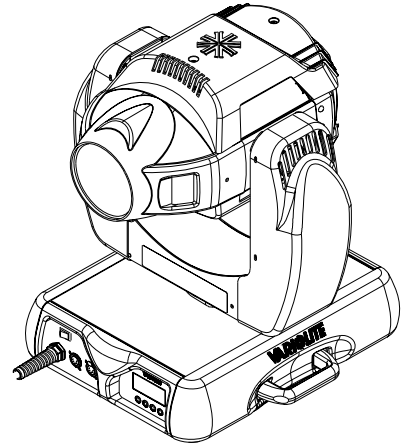
Features

Overview

The VL2500™ Wash Luminaire comes complete with all of the qualities and options designers love from the original Series 2000™ fixtures. It is still small, lightweight, and fast with a 700-watt short arc lamp, impressive lumen output, and a variable field angle from 14° to 55.5°.

Features

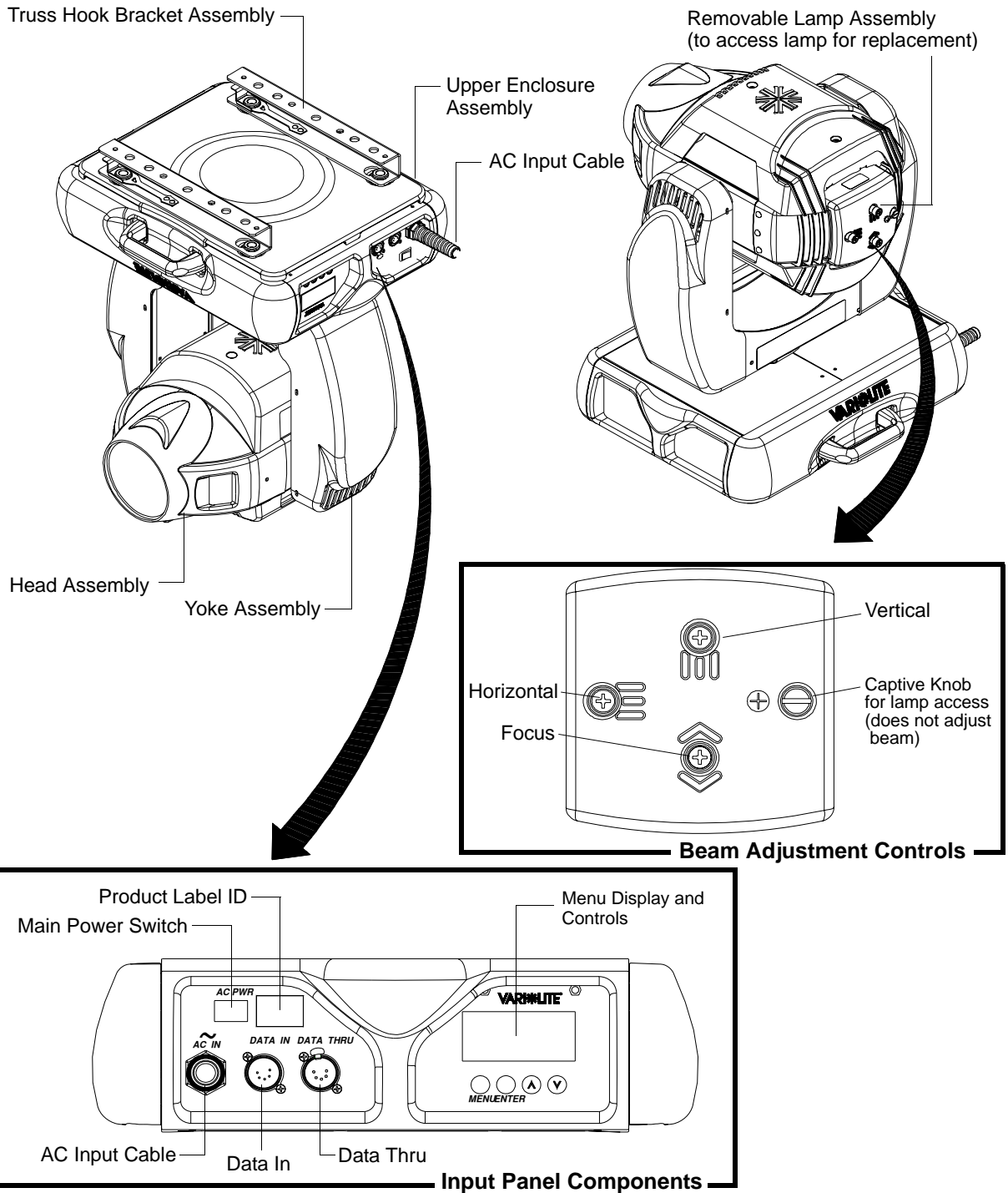
- **Color Mixing System:** A three-filter CYM cross-fading mechanism. A fixed color wheel with 11 interchangeable color filters and one open space capable of continuous rotation for additional effects.
- **Zoom Optics:** Continuously variable field angle from 14° to 55.5°.
- **Intensity Control:** A coated glass dimmer wheel provides full field dimming designed for smooth timed fades.
- **Beam Size:** A zoomable beam spreader mechanism provides continuous beam size control for both rapid changes and smooth timed beam angle adjustments.
- **Strobe:** A high-performance dual blade strobe system capable of ultra-fast operation.
- **Pan/Tilt:** Smooth, time-controlled continuous motion by way of a three-phase stepper motor system.
- **Range:** Pan - 540°, Tilt - 270°.
- **Pan/Tilt Accuracy:** 0.3° resolution.
- **Weight:** 57.3 lbs (26.1 kg)



Major Components

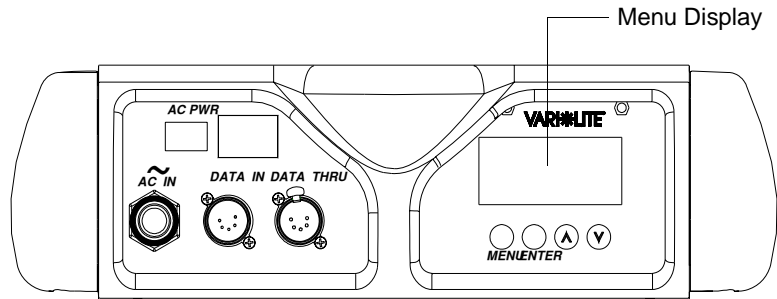
External Components

The following illustration shows major luminaire components and controls.



Menu Display

The menu system is a programmable set of commands used to configure, address, operate, and test the luminaire. The menu system is controlled at the Menu Display available at the enclosure input panel.



The menu system has seven main functions which are referred to as “1st level.” Within these main functions, there can be up to four additional sub-functions (levels 2 thru 5), making five total levels.

Menu Controls

The menu system is controlled by four buttons. These buttons function as follows:

[Menu] button. Displays the menu, or if at first level, the current address.

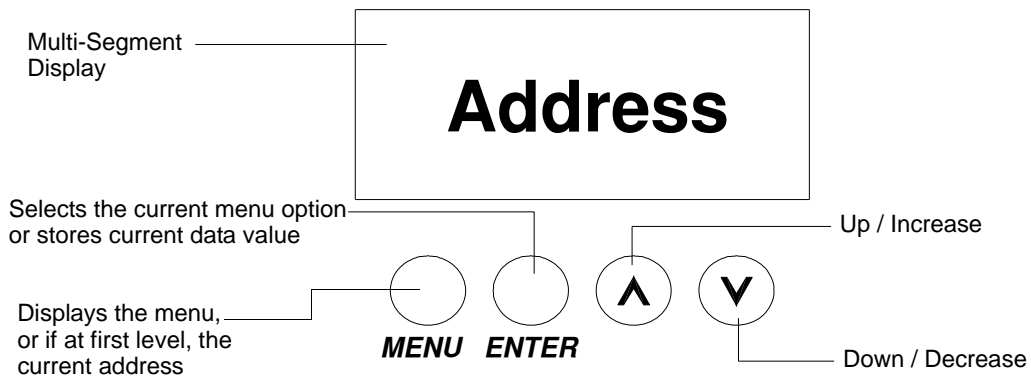
[Enter] button. Selects the current menu option or stores current data value.



[Up] arrow. Scrolls menu options upward or increases current data value.*

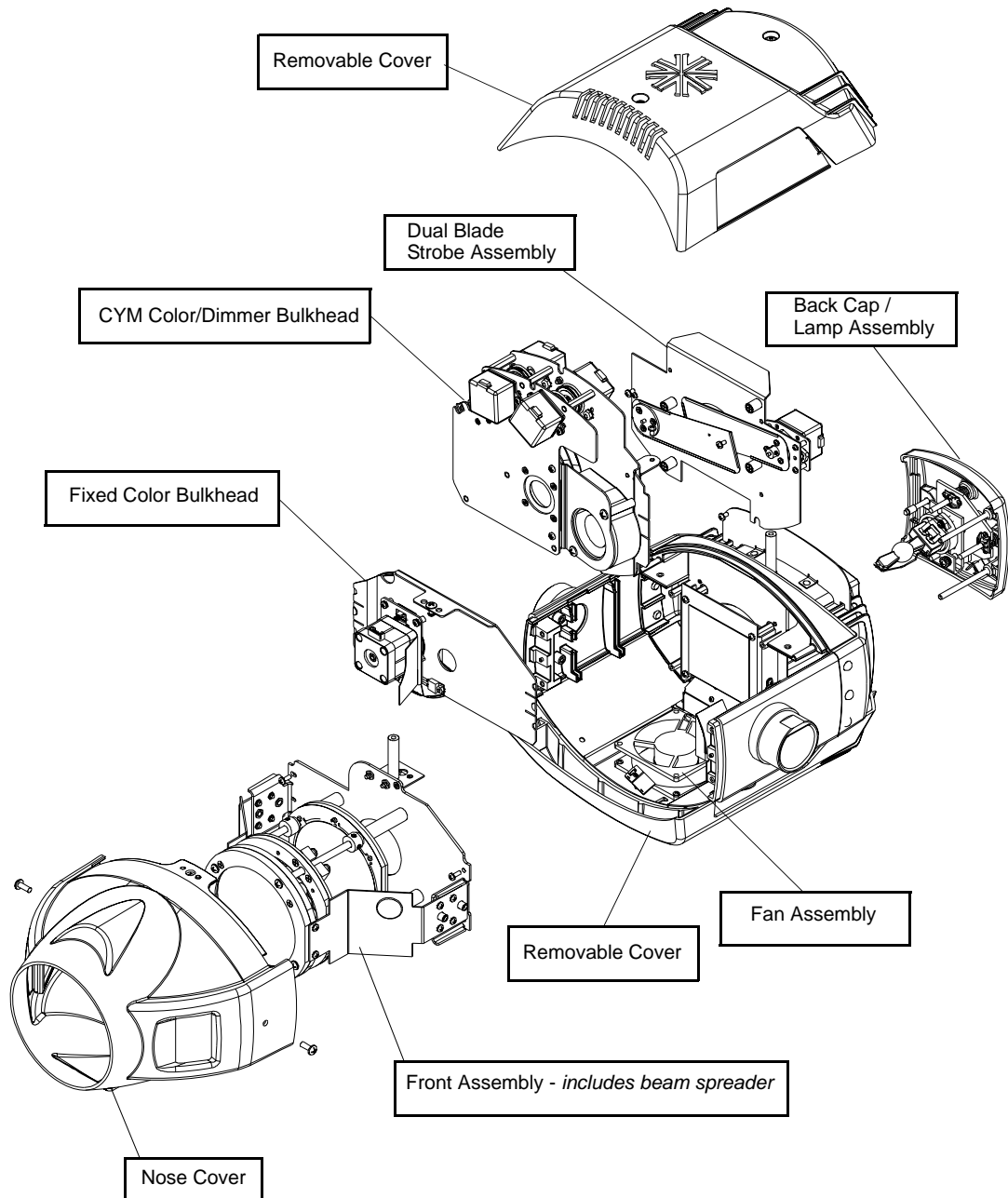


[Down] arrow. Scrolls menu options downward or decreases current data value.*



Head Components

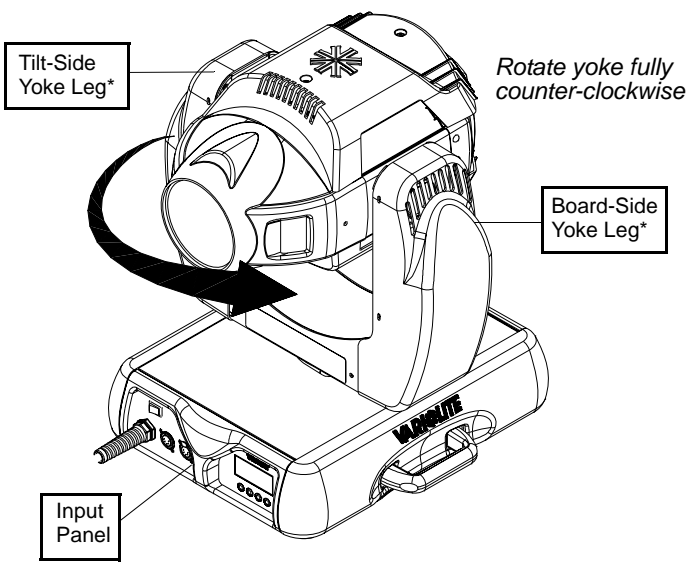
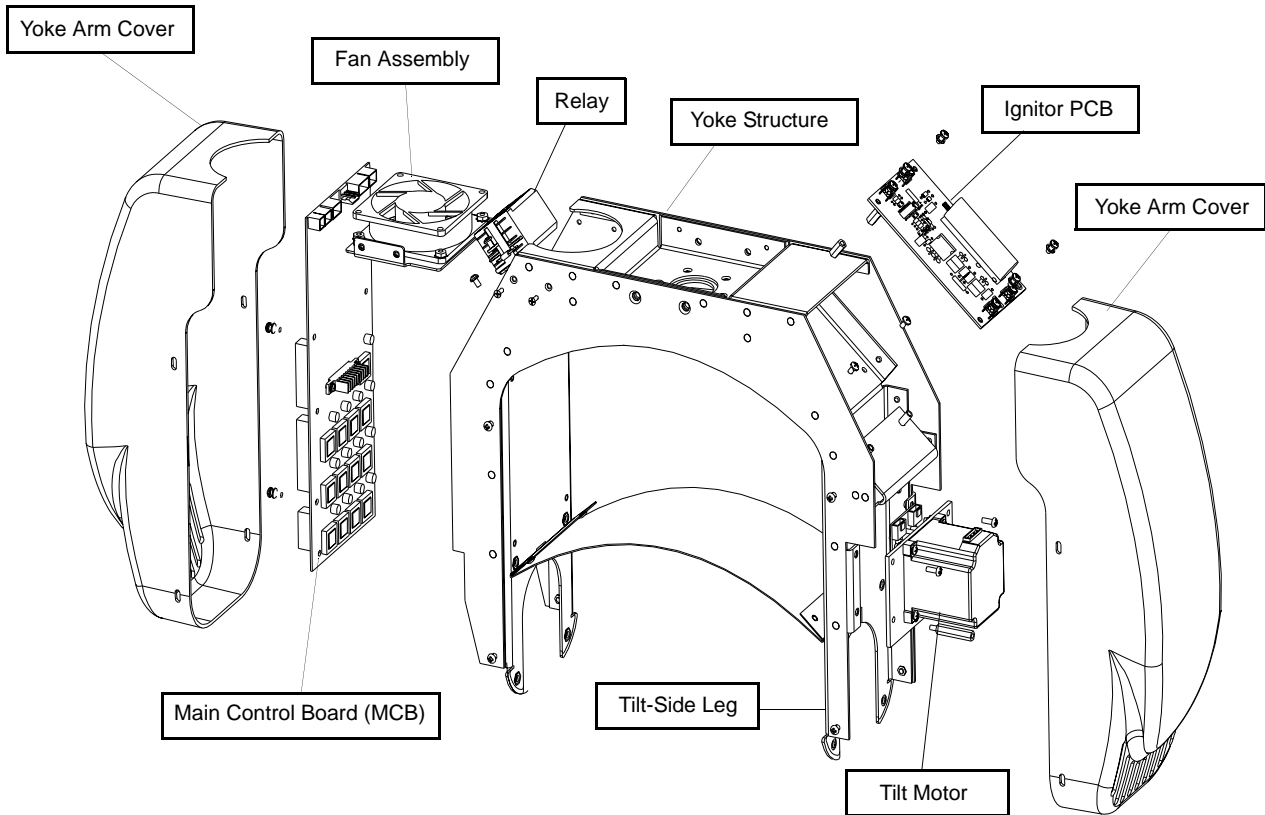
The following illustration shows the major sub-assemblies that are located in the luminaire head assembly. (Yoke and enclosure not shown for clarity.)



Note: This illustration shows current VL2500 components. For information on older models, please refer to the previous versions of this manual.

Yoke Components

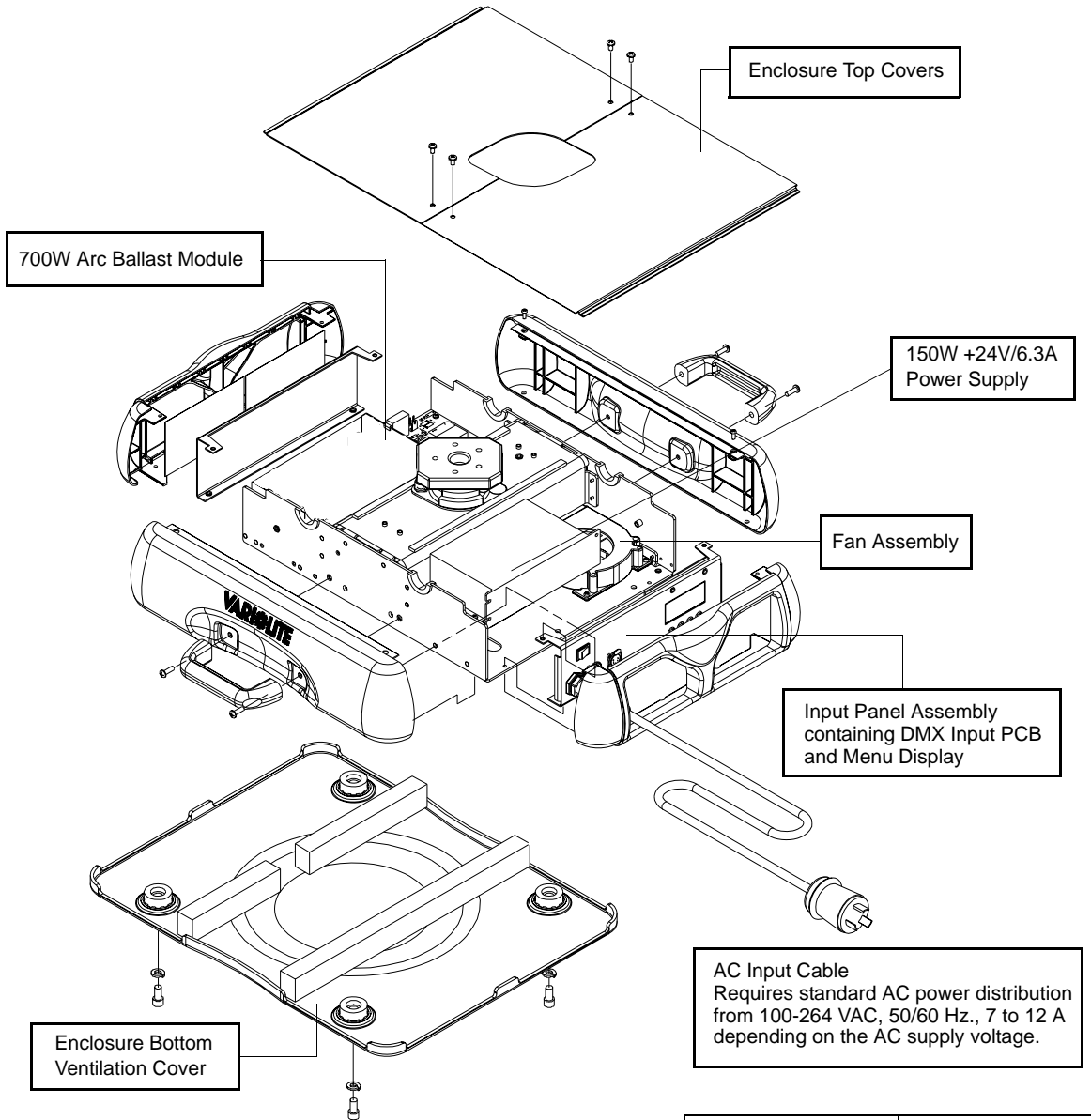
The following illustration shows the major sub-assemblies that are located in the luminaire yoke assembly. (Head and enclosure not shown for clarity.)



*To determine which yoke leg is which without having to remove the covers, rotate yoke counterclockwise until it stops, then look at the luminaire while facing the input panel. The tilt-side leg is the leg to the left; the board-side leg is the leg to the right.

Enclosure Components

The following illustration shows the major sub-assemblies that are located in the luminaire enclosure assembly. (Yoke and head assembly not shown for clarity.)



AC Input Cable
Requires standard AC power distribution from 100-264 VAC, 50/60 Hz., 7 to 12 A depending on the AC supply voltage.

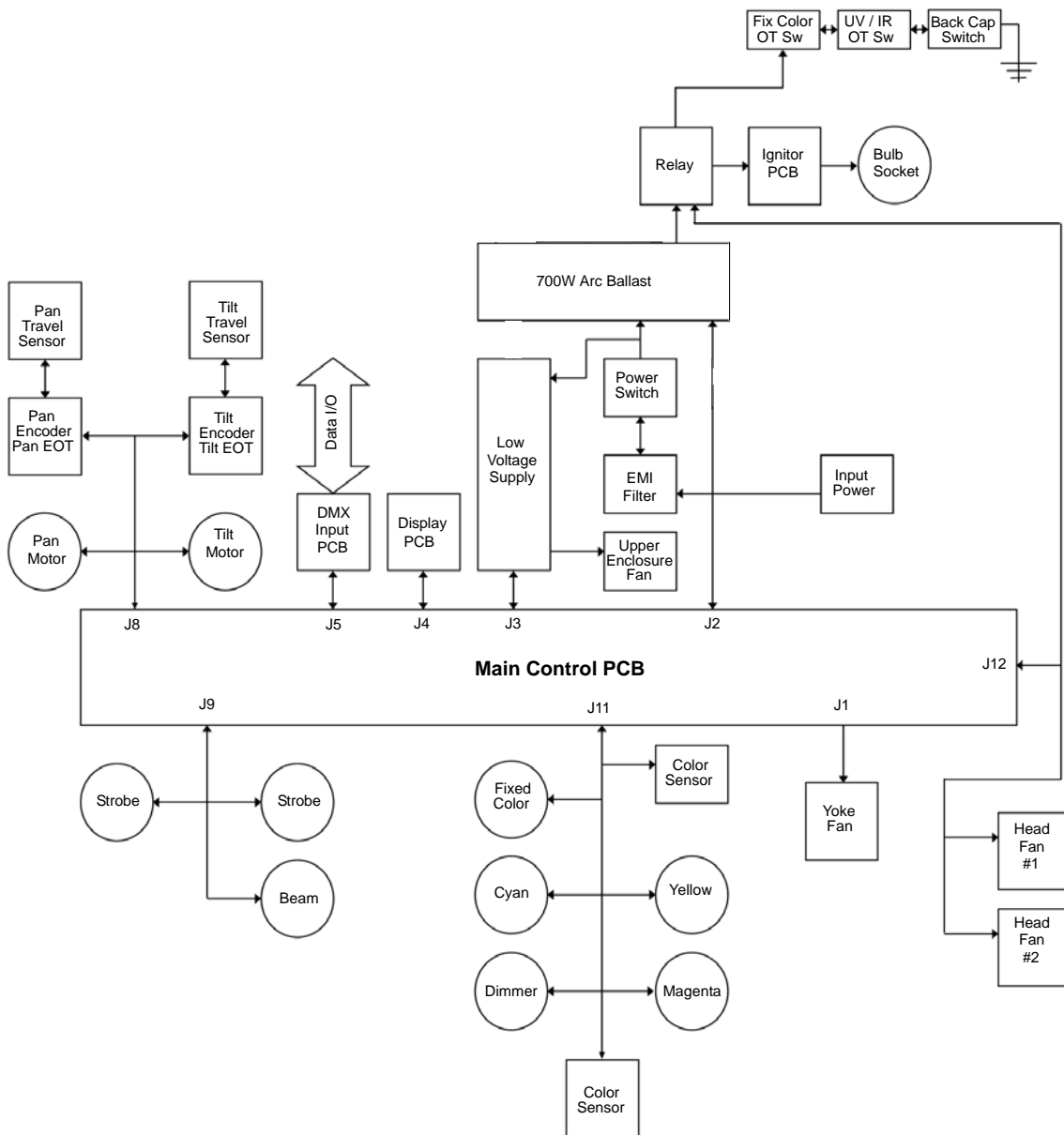
Wire*	Connection
Green/Yellow	AC Ground
Blue	AC Neutral
Brown	AC Line

* International (Harmonized) Standard

Principles of Operation

Power and Data Flow Diagram

The following diagram shows how data and power are distributed in the luminaire.



CHAPTER 2.

Maintenance

This chapter contains test, service, and standard maintenance procedures.

- **Testing**
- **Troubleshooting**
- **Maintenance Procedures**



WARNING: All maintenance procedures are to be performed with power removed from the luminaire. Never remove cover or backcap while lamp is in operation.



WARNING: Maintenance, repairs, and adjustments should only be performed by a qualified, factory-trained service technician at an Authorized VARI*LITE® Service Center.



SERVICE

Testing

Testing Software

Testing software is available in all Series 2000 luminaires through the luminaire's menu system **TEST** function.

For information on specific tests and test parameters, see the VL2500™ Wash Luminaire User's Manual (VL Part no. 02.9676.0021).



Note: After 10 seconds of inactivity, the menu display will change to the default state showing the address.

Lamp

The **Lamp** option is available in the test menu. This option sets the lamp intensity to 100% and will adjust to produce a tight beam. Pan/Tilt are disabled while using the **Lamp** option, and pan/tilt settings will be restored upon exit of the **Lamp** feature.

To run tests:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until **TEST** appears. Press [Enter].
- Step 3. Use [Up] / [Down] arrows to select a parameter to test.
- Step 4. Press [Enter] to run test.
- Step 5. Press [Menu] to stop test at any time.

Troubleshooting

Error Messages

If a problem occurs during luminaire calibration, at the end of the calibration sequence the Menu Display will cycle through any applicable error message(s), one at a time until the end of the list is reached. To review the error messages again, it will be necessary to access them using the Status function. (Refer to [“Troubleshooting Guide” on page 14](#) for a list of possible causes and remedies associated with the error messages.)

To access error messages:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until Fixture appears. Press [Enter].
- Step 3. Press [Up]/ [Down] arrows to access Status. Press [Enter]. (Display will now scroll through any error messages or display OK if no errors.)

Table 2-1: Error Messages

Display	Message...
OK	No Errors Found
Pan/No Sens	Pan sensor not found.
Pan/Encoder/Fail	Pan encoder failure.
Tilt/No Sens	Tilt sensor not found.
Tilt/Encoder/Fail	Tilt encoder failure.
Dimmer/No Sens	Dimmer sensor not found.
Blue/No Sens	Blue sensor not found.
Amber/No Sens	Amber sensor not found.
Magenta/No Sens	Magenta sensor not found.
ColWheel/No Sens	Color wheel sensor not found.



WARNING: Maintenance, repairs, and adjustments should only be performed by a qualified, factory-trained service technician at an Authorized VARI*LITE® Service Center.

Troubleshooting Guide

If a problem is suspected, try recalibrating the luminaire to prompt an error message. Refer to the Troubleshooting Guide table (below) for more information. This table provides possible causes and remedies for each message.

Table 2-2: Troubleshooting Guide

Message	Symptom	Description	Possible Cause and Remedy
n/a	No response to DMX data	DMX Failure	MCB connector disconnected... - check MCB DATA IN connection.
n/a	Lamp douses frequently	Lamp Douse	Fan failure... - check fans for proper connection and operation.
n/a	Lamp will not strike	Lamp Strike Failure	Lamp cutout switch disengaged... - check lamp cutout switches at lamp box and fan ducts. Bad lamp... - replace lamp. Low input voltage... - check input power (must be 100 to 264 VAC)
n/a	Luminaire behaves oddly	Profile Not Matched	Profile not set correctly... - check Setup menu for correct type (spot or wash). - check start DMX address
No Sens	No control, continuous recalibration, and/or mechanism at wrong position	Mechanism failed to find sensor (reported for Cyan, Yellow, Magenta, ColWheel, Dimmer and Edge)	Motor power not connected... - connect motor power. Sensor not connected... - connect sensor. Movement restricted or impeded... - remove obstruction, check cable routing, and/or check voltage at MCB test point.
n/a	Luminaire does not power-up	No power	Switch not turned on... - verify switch is turned on. Not plugged in... - ensure A/C cable is connected to power source.
Pan/Encoder/Fail	Luminaire will not pan	Pan Encoder Failure	MCB pan/tilt connector disconnected... - connect MCB pan/tilt connector (J8). Pan motor disconnected - connect pan motor power. Encoder faulty... - replace pan end-of-travel/encoder sensor assembly.

Table 2-2: Troubleshooting Guide (Continued)

Message	Symptom	Description	Possible Cause and Remedy
Pan No Sens	Luminaire will not pan or hits against stop	Pan Sensor Not Found	EOT flag attached to large pulley is not engaging the EOT sensor... - ensure flag is attached to the large pulley. - ensure that flag passes through the sensor at a depth sufficient to engage the sensor beam. Pan belt disconnected, extremely loose or not installed properly... - properly install belt between pan motor and large pulley.
Tilt/ Encoder/ Fail	Luminaire will not tilt	Tilt Encoder Failure	MCB pan/tilt connector disconnected... - connect MCB pan/tilt connector (J8). Tilt motor disconnected - connect tilt motor power. Encoder faulty... - replace tilt end-of-travel/encoder sensor assembly.
Tilt No Sens	Luminaire will not tilt or hits against stop	Tilt Sensor Not Found	EOT flag attached to large pulley is not engaging the EOT sensor... - ensure flag is attached to the large pulley. - ensure that flag passes through the sensor at a depth sufficient to engage the sensor beam. Tilt belt disconnected, extremely loose or not installed properly... - properly install belt between tilt motor and large pulley.
n/a	Color, dimmer or strobe mechanisms will not move	Color, Dimmer, or Strobe Failure	MCB connector disconnected... - check MCB connector at J9 and/or J11.
n/a	Zoom/Edge mechanism will not move	Zoom/Edge Failure	MCB connector disconnected... - check MCB connector at J9 and/or J11.
n/a	Self tests will not run or software download does not work.	DMX Data Input	Detecting DMX data... - disconnect DMX input cable.
n/a	Erratic control of luminaire	DMX Termination	No DMX termination or termination not correct... - check DMX terminator.

Maintenance Procedures

Head Assembly

This section provides removal and replacement procedures for components found in the luminaire head assembly.

Lamp Replacement

Parts:

71.2528.0700



WARNING: Remove power from luminaire before performing any maintenance.

To remove and replace lamp:

Step 1. Remove power from luminaire.



WARNING: Lamps will be extremely HOT after operation. Allow enough time for the lamp to cool before replacing.

Step 2. At backcap, using slotted screwdriver (or fingers) turn captive knob until loose.

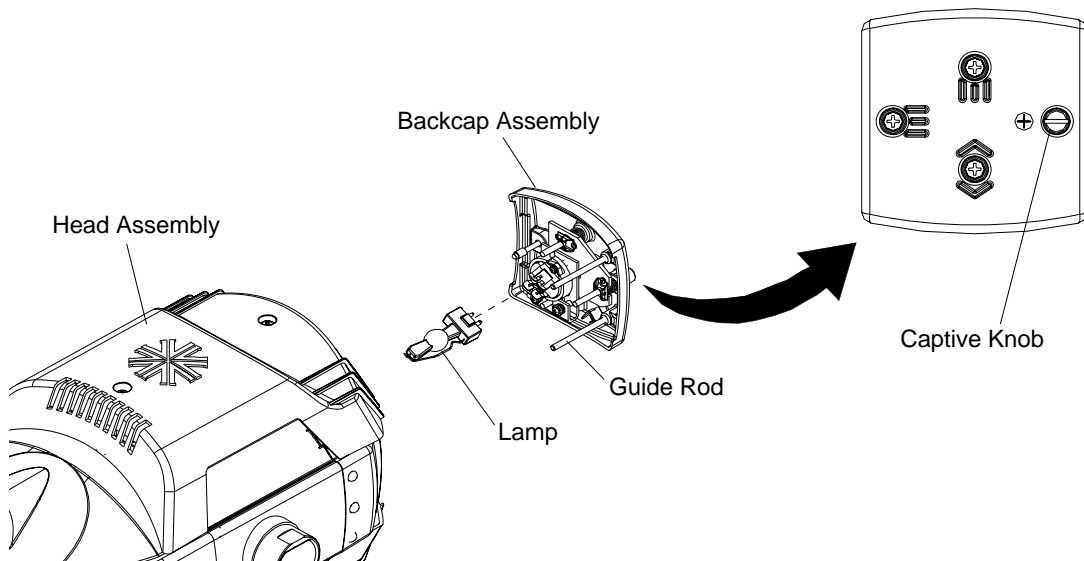


Figure 2-1: Replacing Lamp

Step 3. Slide backcap away from head assembly (it will remain attached by tether and lamp wires).



Note: Wear cotton gloves or other covering while servicing lamp. Touching lamp glass with bare fingers will leave oil and may cause the lamp to explode or reduce lamp life. If required, use alcohol and cotton cloth to thoroughly clean glass portion of lamp.

- Step 4. Remove lamp by pulling straight out of socket.
- Step 5. Install new lamp by pressing into socket. Ensure lamp is fully seated in socket and parallel to guide rods. (Lamp can be damaged when inserted through reflector if not parallel to guide rods.)
- Step 6. Align guide rods in guide holes and slide backcap into head assembly. Retighten captive knob.
- Step 7. If required, reset lamp hour counter as follows. (Refer to "Menu System" in VL2500™ Wash Luminaire User's Manual for more information.)
 - a. Power up luminaire.
 - b. At Menu Display, press [Menu].
 - c. Press [Up] / [Down] arrows until **Config** (Configuration) appears. Press [Enter].
 - d. Press [Up] / [Down] arrows until **Lamp** appears. Press [Enter].
 - e. Press [Up] / [Down] arrows to access **ResetHrs**. Press [Enter] to reset lamp hour and strike counters.
 - f. Align lamp. See "Align Lamp for Flat Field" on page 18..

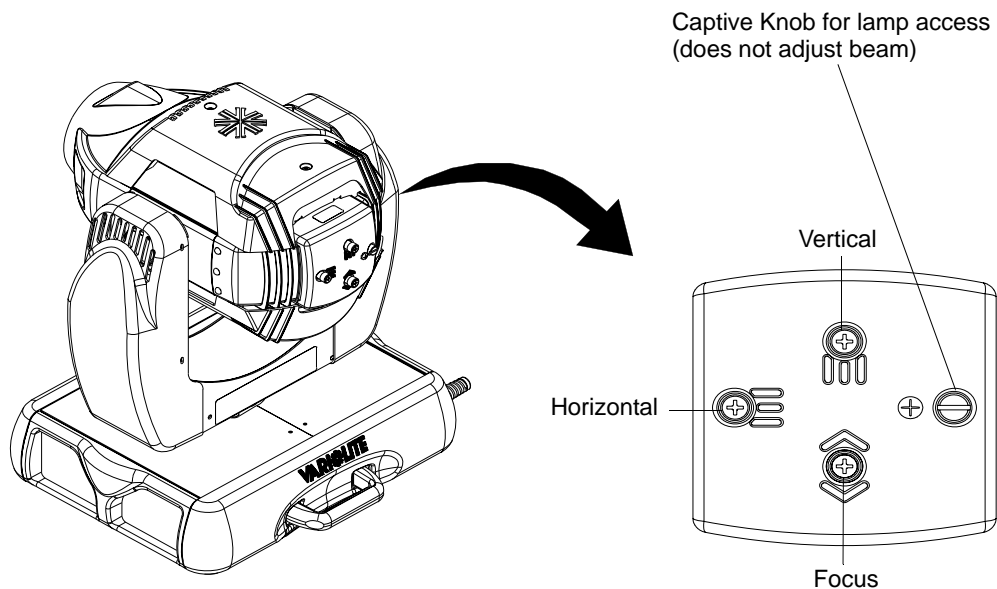


Figure 2-2: Lamp Alignment

Align Lamp for Flat Field

The design of the optical system is based on a flat field. A flat field is one where there is no detectable hot spot.

After a new lamp is installed, it will be necessary to align the lamp to optimize the beam. Knobs located at the luminaire's backcap will allow adjustment.



WARNING: Backcap and adjustment knobs will be HOT during lamp operation. Wear protective gloves and/or use tools to prevent burns.

To align lamp:

- Step 1. Using internal menus select **Lamp** test to set beam. Refer to VL2500™ Wash Luminaire User's Manual for more information. (If using console, set intensity to 100% and adjust diffusion to produce a tight beam.)
- Step 2. Position beam on a white wall at a distance of 10' to 20'.
- Step 3. At backcap, using Vertical and Horizontal knobs, adjust hot spot to center of beam ([Figure 2-3](#)).
- Step 4. Using Focus knob adjust beam for flattest field.

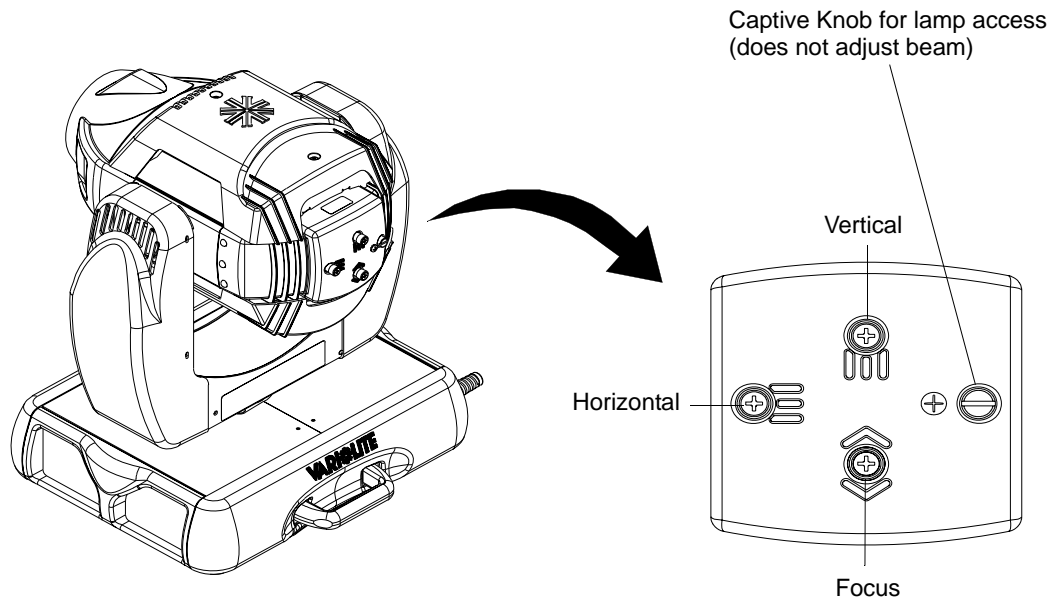


Figure 2-3: Aligning Lamp for Flat Field

Fixed Color Bulkhead Replacement

Parts:

21.9676.1120

To remove and replace fixed color bulkhead assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At head cover, gradually loosen two 8-32 x 1/2" PPB captive screws and remove cover (it will remain attached by tether) as shown in [Figure 2-4](#).
- Step 3. At CYM crossfade color bulkhead, remove assembly as follows:
 - a. Disconnect wiring.
 - b. Remove two 6-32x1/4" PPB screws.
 - c. Remove assembly.
- Step 4. At fixed color bulkhead, turn captive screw one-quarter turn to release bulkhead.
- Step 5. At fixed color bulkhead, disconnect wiring harness connectors from color wheel motor and color sensor.
- Step 6. Slide bulkhead out of head assembly and then disconnect wiring for thermal switch.

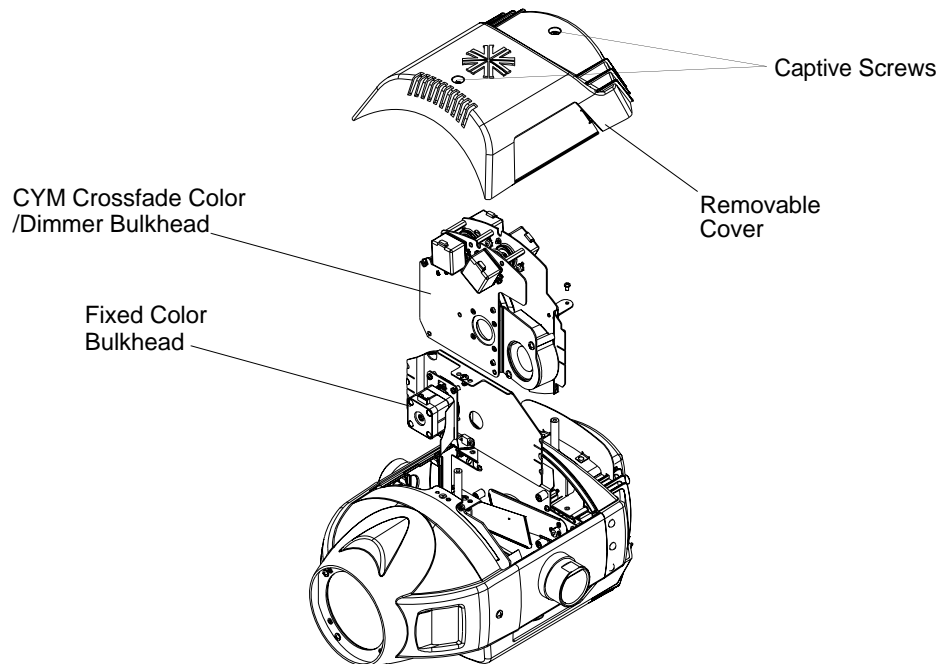


Figure 2-4: Fixed Color Bulkhead Replacement

- Step 7. Install replacement assembly by performing Steps 2 through 6 in reverse order.

Standard Color Filter Replacement

Parts:

Color Filter as required

To remove and replace a standard color filter:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At head cover, gradually loosen two 8-32 x 1/2" PPB captive screws and remove cover (it will remain attached by tether) as shown in [Figure 2-4](#) on page 19.



Note: In some cases it is easier to slide bulkhead partially out of head assembly to access color filters. To do this, use #2 Phillips screwdriver to turn captive screw one-quarter turn and slide bulkhead upward.

- Step 3. At CYM crossfade color bulkhead, remove assembly as follows:
- Disconnect wiring.
 - Remove two 6-32x1/4" PPB screws.
 - Remove assembly.

- Step 4. Rotate wheel until required filter is accessible.



CAUTION: Do not touch filters with bare fingers. Wear cotton gloves or other covering while replacing.

- Step 5. Using fingers, pull filter out of wheel as illustrated in [Figure 2-5](#).
- Step 6. Noting proper orientation of carrier slot, insert new color filter into position and push fully into place.
- Step 7. Re-install CYM crossfade color assembly and re-install head cover.

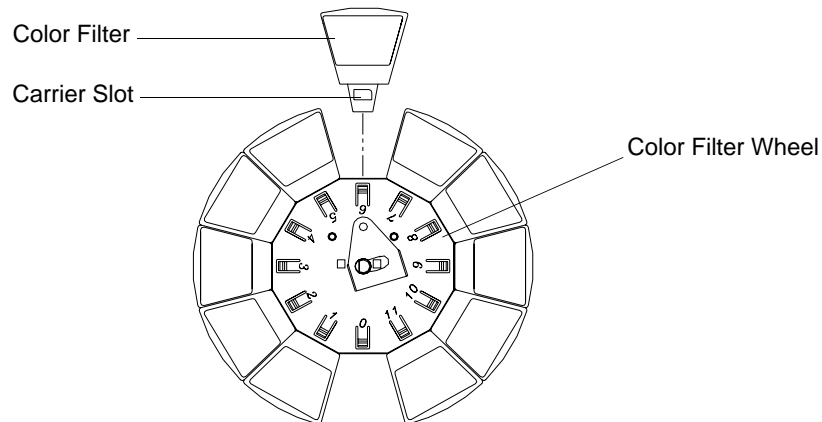


Figure 2-5: Standard Color Filter Replacement

Strobe Bulkhead Replacement

Parts:

22.9676.0016

To remove and replace strobe bulkhead assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At luminaire, remove top and bottom head covers as follows:
 - a. At top head cover, gradually loosen two 8-32 x 1/2" PPB captive screws and remove cover (it will remain attached by tether) as shown in [Figure 2-4](#) on page 19.
 - b. At bottom head cover, gradually loosen three 8-32 x 1/2" PPB captive screws and remove cover.
- Step 3. At CYM crossfade color bulkhead, remove assembly as follows:
 - a. Disconnect wiring.
 - b. Remove two 6-32x1/4" PPB screws.
 - c. Remove assembly.
- Step 4. Remove the fixed color bulkhead assembly. See [“Fixed Color Bulkhead Replacement” on page 19](#) for procedure.
- Step 5. (**Optional** - to gain direct access to four mounting screws if right-angle screw driver is not available.) Remove front assembly. See [“Front Assembly Removal” on page 23](#) for procedure.
- Step 6. At strobe assembly, remove six 6-32 x 1/4" PPB SEMS screws.
- Step 7. Disconnect motor wire connectors from motors
- Step 8. Slide strobe bulkhead assembly out of head assembly as illustrated in [Figure 2-6](#) on page 22.

Strobe Bulkhead Replacement (continued)

Step 9. Install replacement assembly by performing Steps 2 through 8 in reverse order.

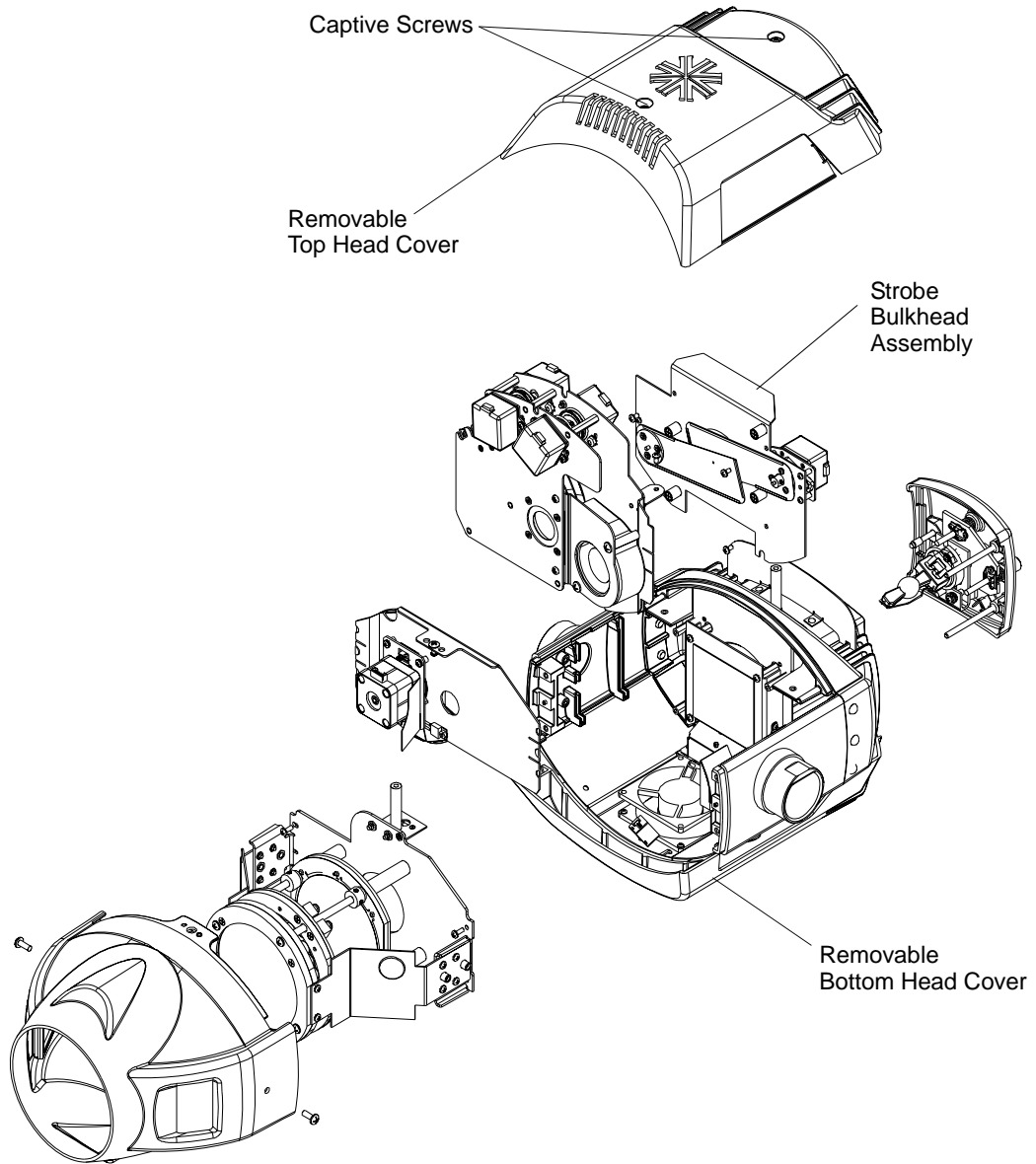


Figure 2-6: Strobe Bulkhead Replacement

Front Assembly Removal

Parts:

21.9676.1006



Note: This procedure may be necessary to gain access to other components.

To remove and re-install front assembly:

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At luminaire, remove top and bottom head covers as follows:

- a. At top head cover, gradually loosen two 8-32 x 1/2" PPB captive screws and remove cover (it will remain attached by tether) as shown in [Figure 2-4](#) on page 19.
- b. At bottom head cover, gradually loosen three 8-32 x 1/2" PPB captive screws and remove cover.

Step 3. Remove front nose cover by removing two 10-32x1/2" PPB screws (one on each side) Remove one screw and disconnect tether for top head cover.

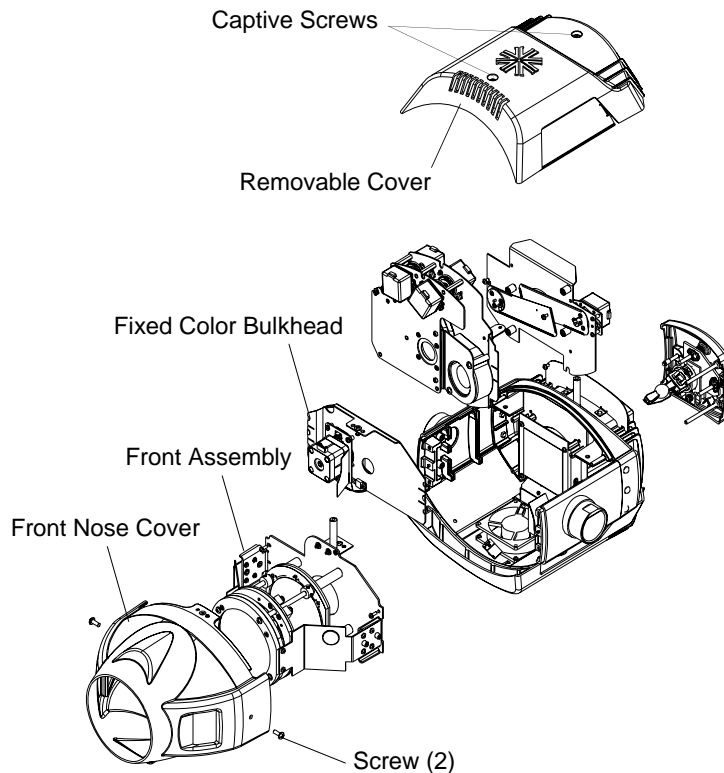


Figure 2-7: Front Assembly Removal

Front Assembly Removal (continued)

- Step 4. At junction connector, disconnect edge motor wiring.
- Step 5. Face head nose upward. At front of bulkhead, using #2 Phillips long handle screwdriver, remove four 6-32 X 3/8" PPB screws, and pull front assembly out of head assembly.
- Step 6. Re-install front assembly by performing Step 2 through 5 in reverse order.



Note: While re-installing, connect wiring harness connection and route wires ensuring no wires are pinched.

Beam Spreader Motor Assembly Replacement

Parts:

22.9671.0468

To remove and replace beam spreader motor assembly:

WARNING: All maintenance procedures are to be performed with power removed from the luminaire.

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove front internal head assembly. Refer to “[Front Assembly Removal](#)” on page 23.
- Step 3. Disconnect beam spreader motor assembly wire connector from motor harness cable assembly.
- Step 4. Remove two 4-40 KEPS nuts securing motor assembly to bulkhead.
- Step 5. At beam spreader motor assembly, using 1/4" open-ended wrench and pliers, remove one 4-40 KEPS nut from end of motor shaft (as shown in [Figure 2-8](#)).
- Step 6. Slide motor forward to clear bulkhead and remove.
- Step 7. Install new motor assembly following Steps 2 through 6 in reverse order.

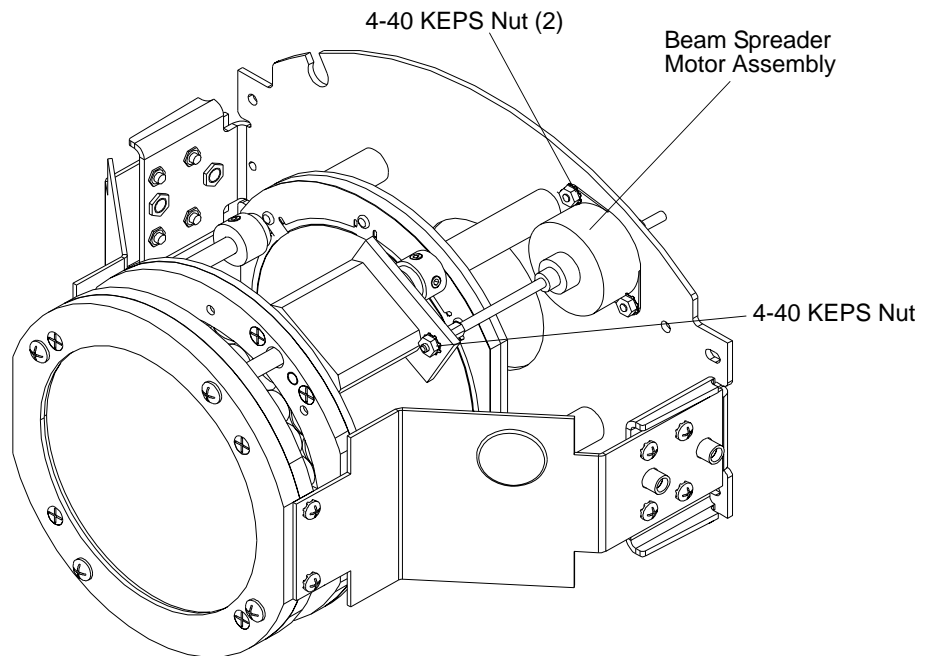


Figure 2-8: Beam Spreader Motor Assembly Replacement

Concave Lens Assembly Replacement

Parts:

21.9671.0492

To remove and replace concave lens assembly:



WARNING: All maintenance procedures are to be performed with power removed from the luminaire.

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove front internal head assembly. Refer to “[Front Assembly Removal](#)” on page 23.
- Step 3. Remove four 6-32 x 3/16" PPB screws and four #6 lock washers securing concave lens assembly to lens support arm (as indicated in [Figure 2-9](#)).

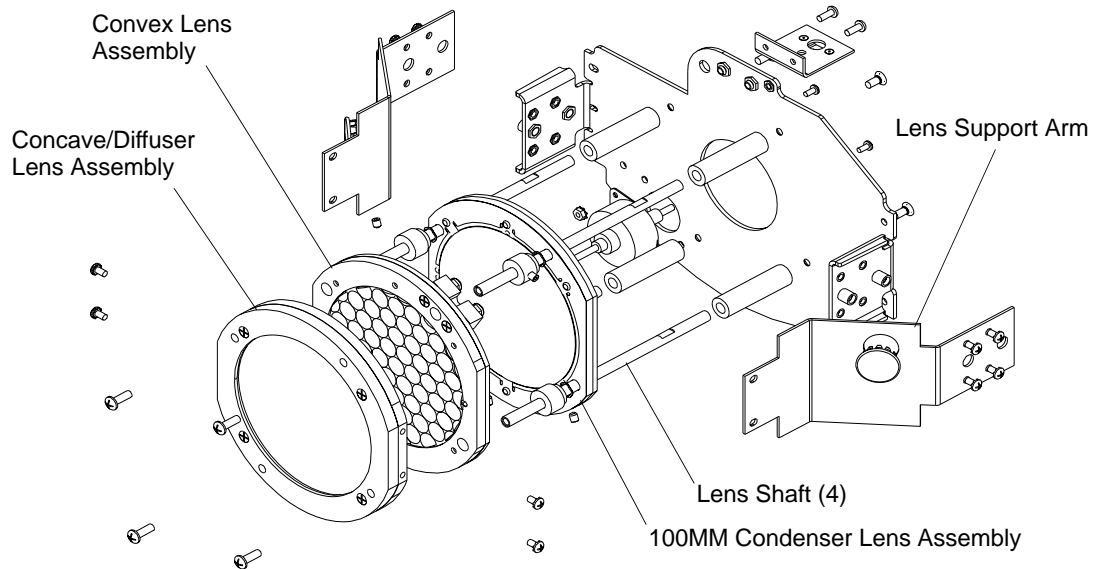


Figure 2-9: Concave Lens Assembly Replacement



CAUTION: Do not touch lens with bare fingers. Wear cotton gloves or other covering while replacing.

- Step 4. Remove four 8-32 x 1/2" PPB screws securing concave lens assembly to lens shafts, and remove concave lens assembly.
- Step 5. Install replacement concave lens assembly by performing Steps 2 through 4 in reverse order.

Convex Lens Assembly Replacement

Parts:

22.9671.0414

To remove and replace convex lens assembly:



WARNING: All maintenance procedures are to be performed with power removed from the luminaire.

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove concave lens assembly. Refer to [“Concave Lens Assembly Replacement”](#) on page 26.
- Step 3. Using 1/4" nutdriver, remove one 4-40 KEPS nut on end of beam spreader motor assembly shaft (see [Figure 2-10](#)).

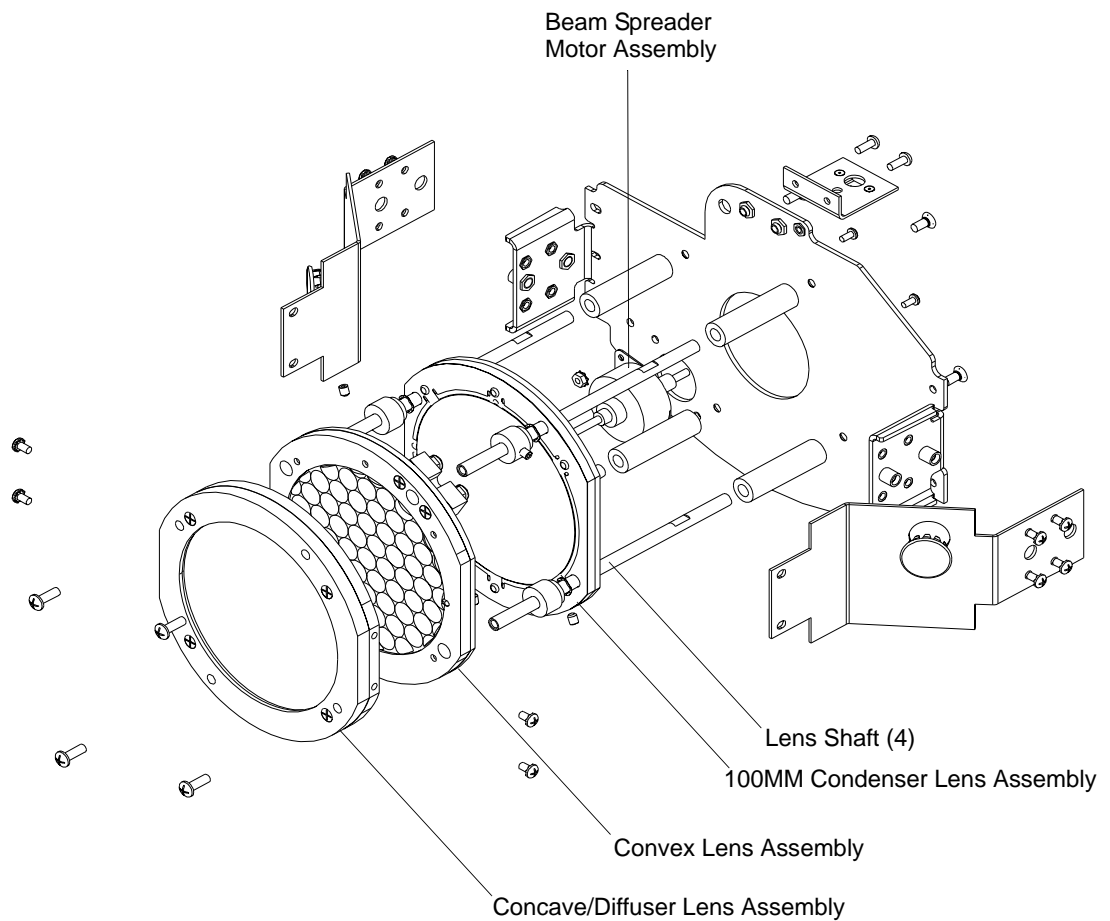


Figure 2-10: Convex Lens Assembly Replacement

Convex Lens Assembly Replacement (continued)



CAUTION: Do not touch lens with bare fingers. Wear cotton gloves or other covering while replacing.

- Step 4. Remove convex lens assembly from lens shafts.
- Step 5. In replacement convex lens assembly, using 1/4" Allen Wrench, adjust 8-32 x 2" screw so that screw head is nearly flush with drive bushing plate to create a 0.020" gap between concave and convex lens assemblies.
- Step 6. Slide replacement convex lens assembly and then old concave lens assembly onto lens shafts.
- Step 7. Hold convex and concave lens assemblies together, and using #2 Phillips screwdriver, re-install four #8 lock washers and four 8-32 x 1/2" PPB screws, and tighten to keep lens assemblies aligned.
- Step 8. Re-install four 6-32 x 3/16" PPB screws and four #6 lock washers securing concave lens assembly to lens support arm.
- Step 9. Using 1/4" nutdriver, re-install one 4-40 KEPS nut on end of beam spreader motor assembly shaft.

100MM Condenser Lens Assembly Replacement

Parts:

22.9671.0402

To remove and replace 100MM condenser lens assembly:



WARNING: All maintenance procedures are to be performed with power removed from the luminaire.

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove front internal head assembly. Refer to [“Front Assembly Removal” on page 23.](#)
- Step 3. Remove concave lens assembly. Refer to [“Concave Lens Assembly Replacement” on page 26.](#)
- Step 4. Remove convex lens assembly. Refer to [“Convex Lens Assembly Replacement” on page 27.](#)



Note: Before removing shaft collets, note orientation for use during re-installation.

- Step 5. Using 5/64 " Allen wrench, loosen eight setscrews (two each collect), and remove four shaft collets and four wave spring washers from lens shafts ([Figure 2-11](#)).



CAUTION: Do not touch lens with bare fingers. Wear cotton gloves or other covering while replacing.

- Step 6. Remove 100MM condenser lens assembly from lens shafts.
- Step 7. Slide replacement 100MM condenser lens assembly onto lens shafts.
- Step 8. Re-install four wave spring washers on lens shafts.
- Step 9. Re-install four shaft collets on lens shafts.



Note: Ensure wave spring washers are compressed before tightening shaft collet set-screws.

- Step 10. Slide shaft collet down on lens shaft until wave spring washer is compressed.
- Step 11. Apply Loctite #242 to threads of setscrews, and using 5/64" Allen wrench, tighten setscrews to secure shaft collet to base of lens shaft.
- Step 12. Repeat steps 10 and 11 for remaining three shaft collets.

100MM Condenser Lens Assembly Replacement (continued)

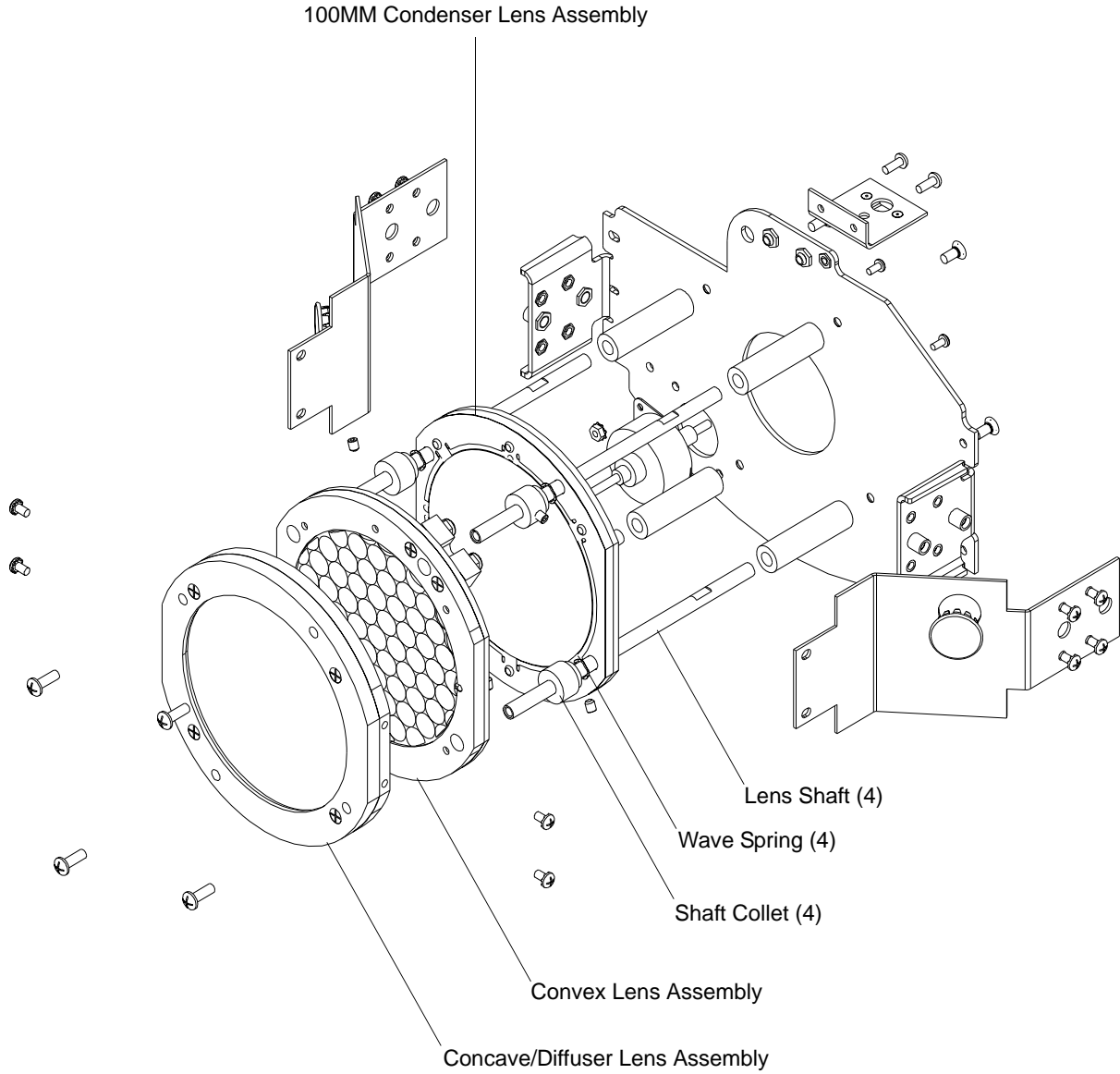


Figure 2-11: 100MM Condenser Lens Assembly Replacement

Step 13. Re-install convex and concave lens assemblies.

Yoke Assembly

This section provides removal and replacement procedures for components found in the luminaire yoke assembly.

Tilt Motor Assembly Replacement

Parts:

22.9676.0610

To remove and replace tilt motor assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At tilt-side leg, remove yoke leg cover by removing four (two on each side) 6-32×5/16" PTB screws. [Figure 2-12](#). To find tilt-side leg, refer to [page 8](#).

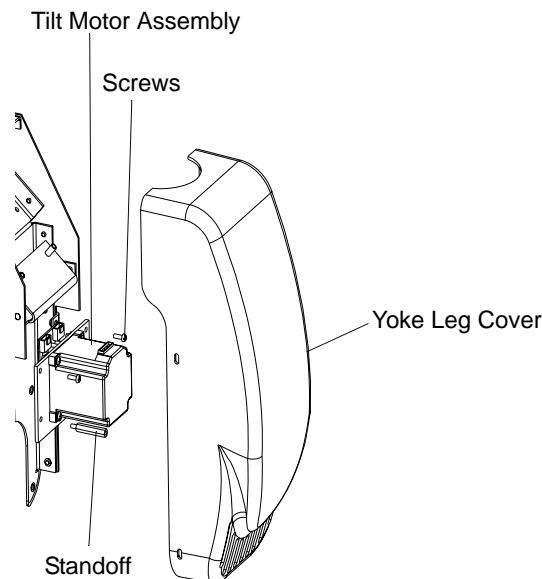


Figure 2-12: Tilt Motor Assembly Replacement

- Step 3. At pan/tilt encoder PCB (mounted behind tilt motor mounting plate), disconnect two cable connectors.
- Step 4. At tilt motor, disconnect motor wire connector.
- Step 5. Remove 6-32 screw securing cable saddle and then, using 1/4" nutdriver, remove 1/4" hex standoff.
- Step 6. Remove three remaining 6-32×5/16" PPZ screws securing tilt motor assembly to yoke leg and remove assembly while freeing pulley from belt.
- Step 7. Install replacement assembly by performing Steps 2 through 6 in reverse order.

Main Control Board (MCB) PCB Replacement

Parts:

24.9676.3730

To remove and replace an MCB PCB:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At board-side leg, remove yoke leg cover by removing four 6-32×5/16" PTB screws as shown in [Figure 2-13](#). To find board-side leg, refer to [page 8](#).



CAUTION: Always use anti-static precautions when working with PCBs.

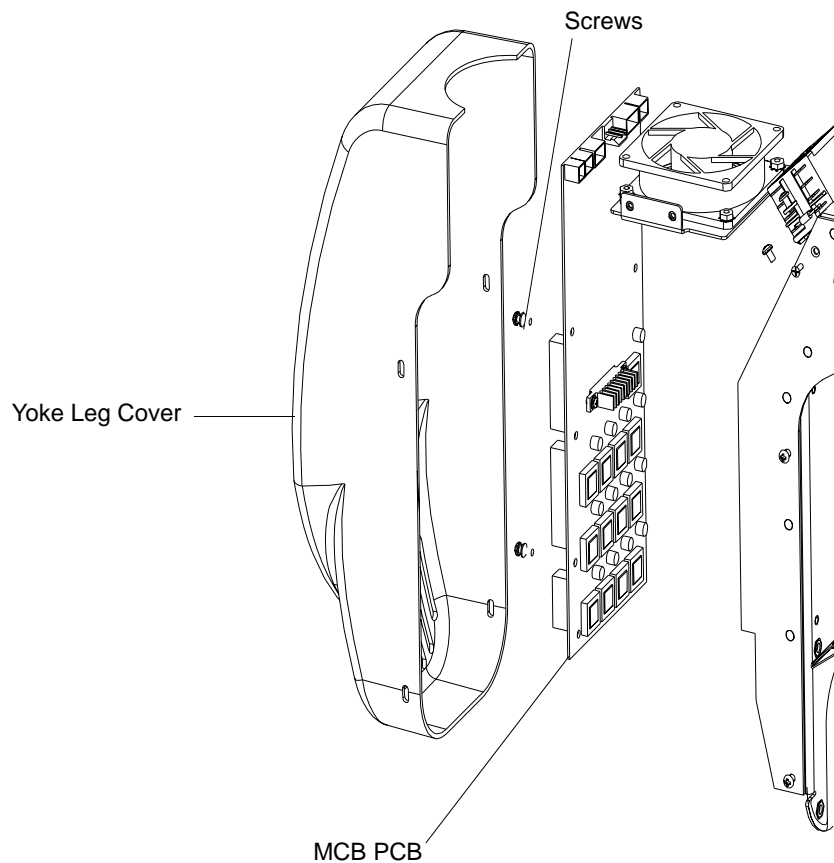


Figure 2-13: MCB PCB Replacement

- Step 3. Disconnect wiring harness connectors J8, J9, and J11.
- Step 4. Remove four (4) 6-32 x 3/8" PPZ SEMS screws securing MCB PCB.
- Step 5. Disconnect upper enclosure connectors at back of MCB.
- Step 6. Install replacement assembly by performing Steps 2 through 5 in reverse order.

Ignitor PCB Replacement

Parts:

24.9661.3126

To remove and replace ignitor PCB:

Step 1. Disconnect luminaire AC input cable from power source.

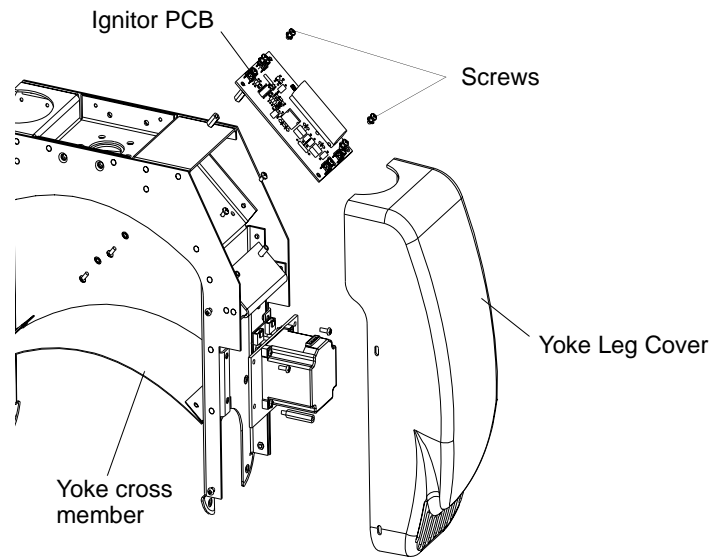


Figure 2-14: Ignitor PCB Replacement

- Step 2. At each yoke leg, remove yoke leg cover by removing four 6-32×5/16" PTB screws. [Figure 2-14](#).
- Step 3. Remove MCB PCB (See "Main Control Board (MCB) PCB Replacement" on page 32.).
- Step 4. At yoke cross member, remove four 6-32×3/16" LG PPZ screws and associated washers which secure cross member cover to yoke and remove cover. (These screws are accessible from inside yoke legs.)



CAUTION: Always use anti-static precautions when working with PCBs.

- Step 5. At Ignitor PCB, remove two accessible screws which secure PCB to yoke leg.
- Step 6. At yoke cross member, remove two 6-32×5/16" PPZ screws and washers which secure ignitor PCB standoffs to yoke leg.
- Step 7. Disconnect ignitor PCB wires by removing four screws which secure wire ring terminals to PCB and remove ignitor PCB.

Ignitor PCB Replacement (continued)

Step 8. Remove two 1/4" hex 6-32 .500" LG Standoff (2) by removing one 6-32×5/16" PPZ screw and #6 lock washer. Install in same place on new ignitor PCB. [Figure 2-15](#).

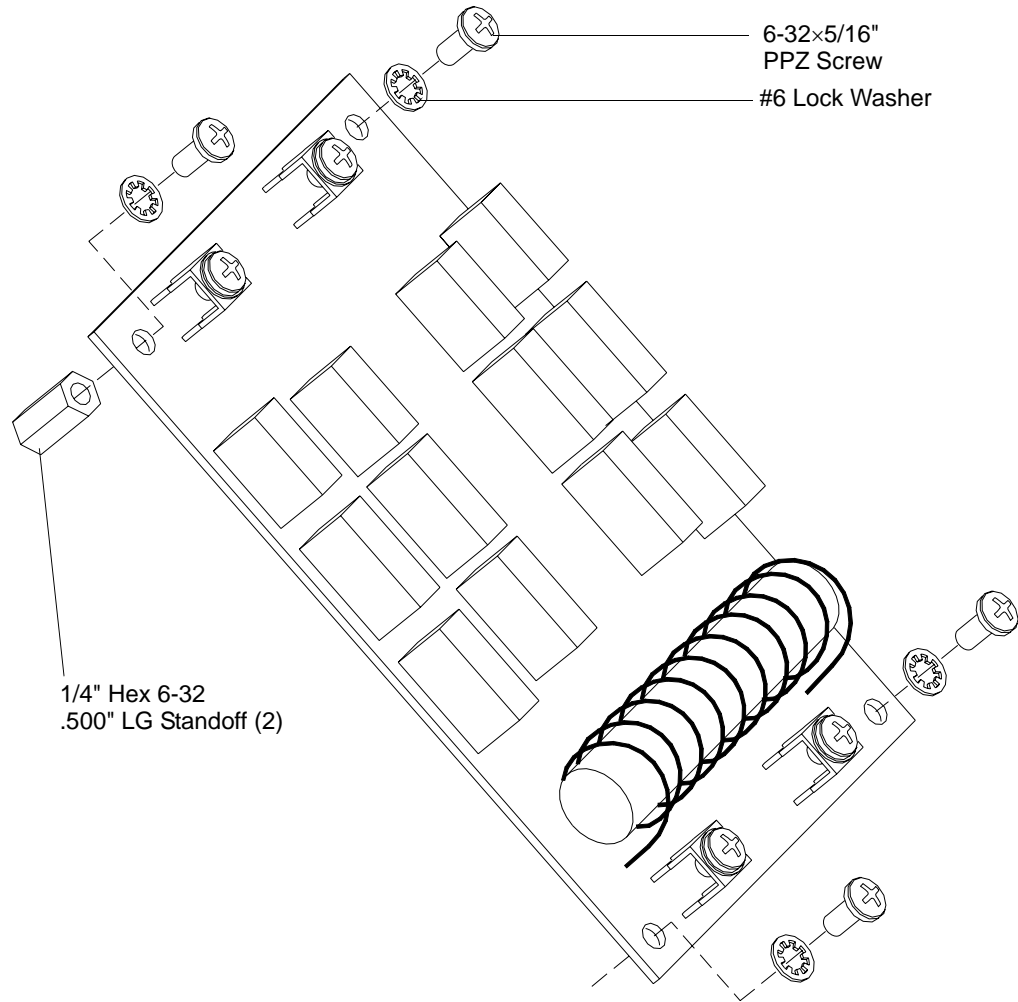


Figure 2-15: Ignitor PCB Standoff Removal

Step 9. Install replacement assembly by performing Steps 2 through 8 in reverse order.

Enclosure Assembly

This section provides removal and replacement procedures for components found in the luminaire enclosure assembly.

Removing Enclosure Covers

To gain access to enclosure components, it will be necessary to remove the top and bottom covers.

To remove and replace enclosure covers:

- Step 1. Using console or internal menus, run lens as far to the rear as possible.
- Step 2. Disconnect luminaire AC input cable from power source.
- Step 3. At each top enclosure cover, remove two 6-32×1/4" PPB screws and remove cover as shown in [Figure 2-16](#).

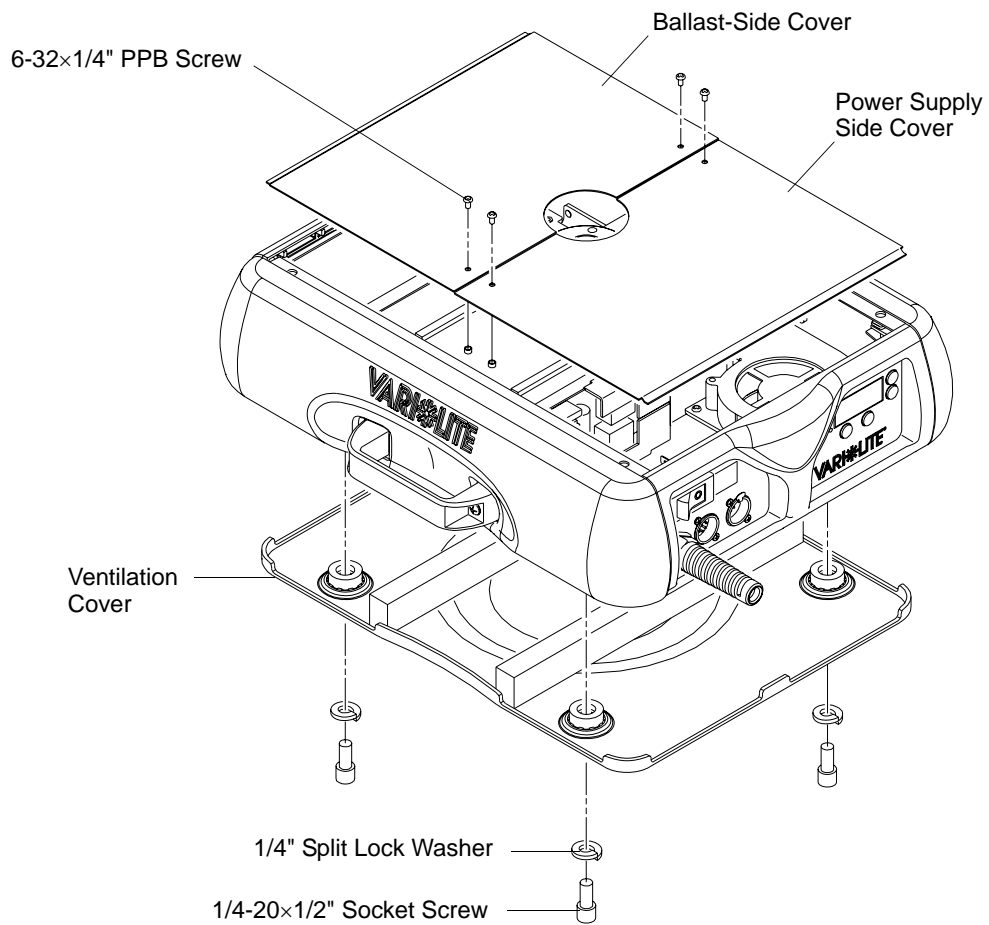


Figure 2-16: Removing Top and Bottom Enclosure Covers

Removing Enclosure Covers (continued)



CAUTION: Be careful not to damage lens during next step.

- Step 4. Carefully lay luminaire on its side as shown in [Figure 2-17](#). Make sure that lens does not come into contact with any surface..

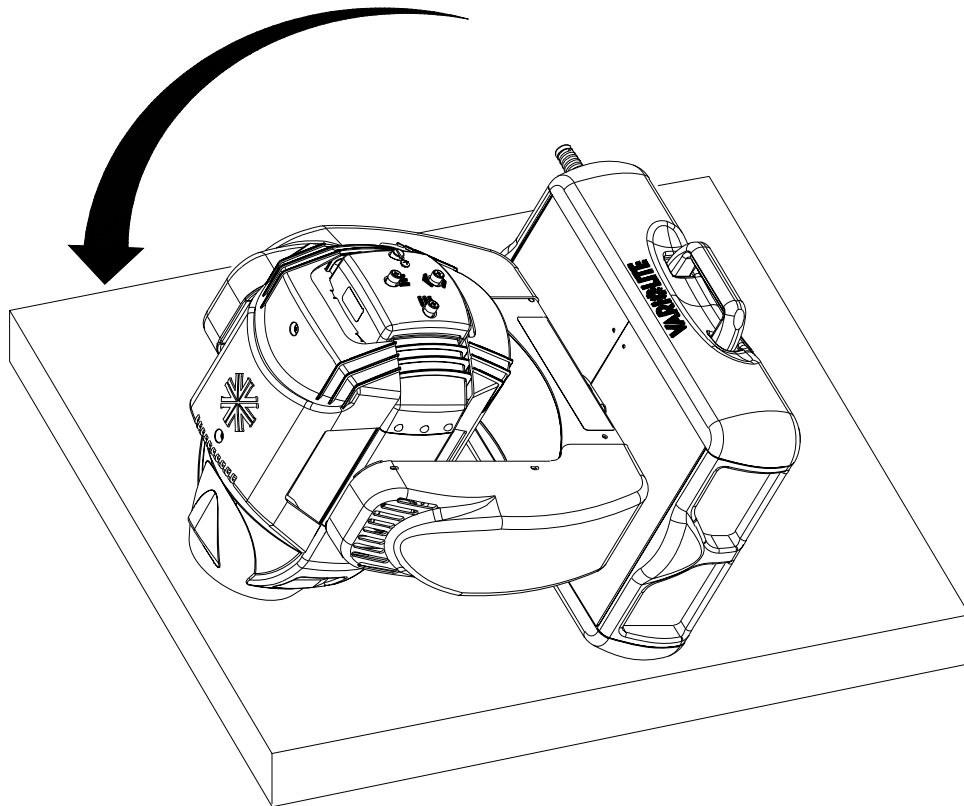


Figure 2-17: Laying Luminaire on Its Side

- Step 5. At bottom of enclosure, remove four 1/4-20 × 1/2" socket screws and 1/4" split lock washers and remove ventilation cover.
- Step 6. Return luminaire to upright position.

Ballast Module Assembly Replacement

Parts:

69.9676.0700

To remove and replace ballast module assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At enclosure, remove ballast-side and ventilation covers. Refer to [“Removing Enclosure Covers”](#) on page 35.



Note: Throughout this procedure, please note different size screws and their respective locations

- Step 3. Remove both handles by removing two 10-32 x 5/8" PPB screws at each.
- Step 4. At enclosure, remove eight 6-32 x 3/8" PPZ screws and both side covers. [Figure 2-18.](#)

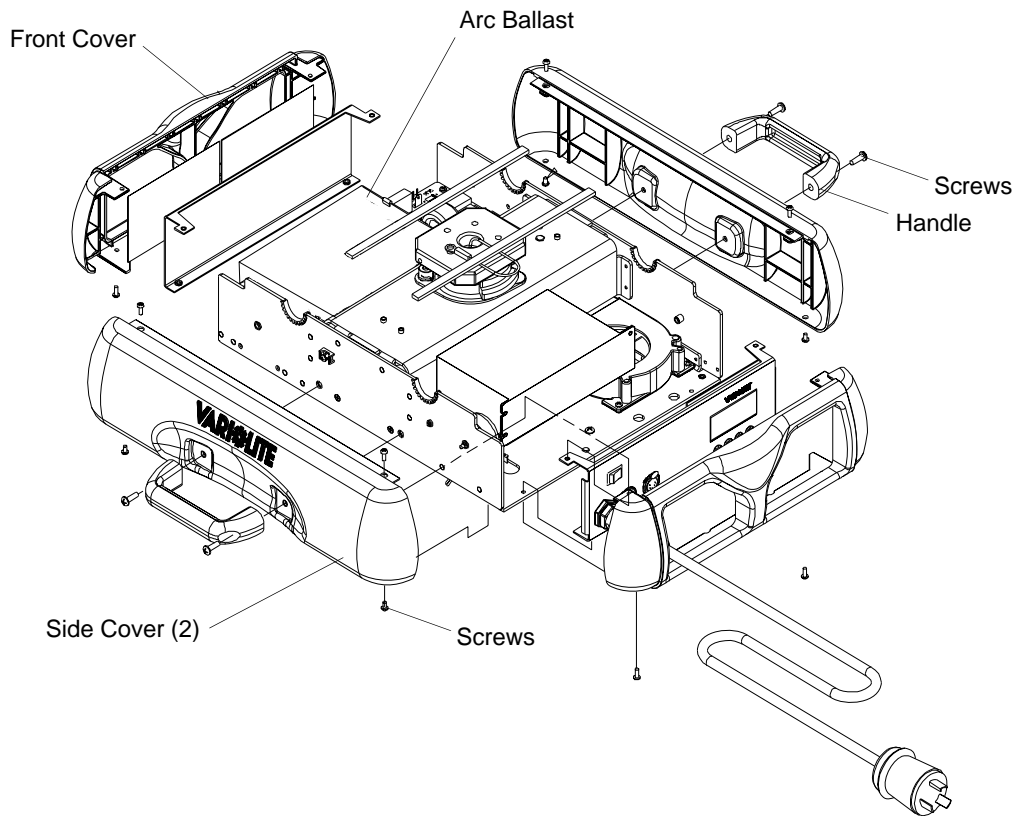


Figure 2-18: Accessing Ballast Module

- Step 5. At enclosure bottom, remove two 6-32x3/8" PPB screws, APS side bracket and front cover from ballast side.

Ballast Module Assembly Replacement (continued)

Step 6. At ballast, disconnect the following cable assemblies:

- a. Lamp wires
- b. AC input
- a. Control wiring

Step 7. Pull lamp wires through ferrite core.

Step 8. At bottom of enclosure, remove three 8-32x3/8" PFZ screws and four 8/32x3/8" PPZ screws which secure ballast module to enclosure.

Step 9. Remove ballast module.

Step 10. Install replacement assembly by performing Steps 2 through 9 in reverse order.

NOTE: _____
Some components not shown for clarity.

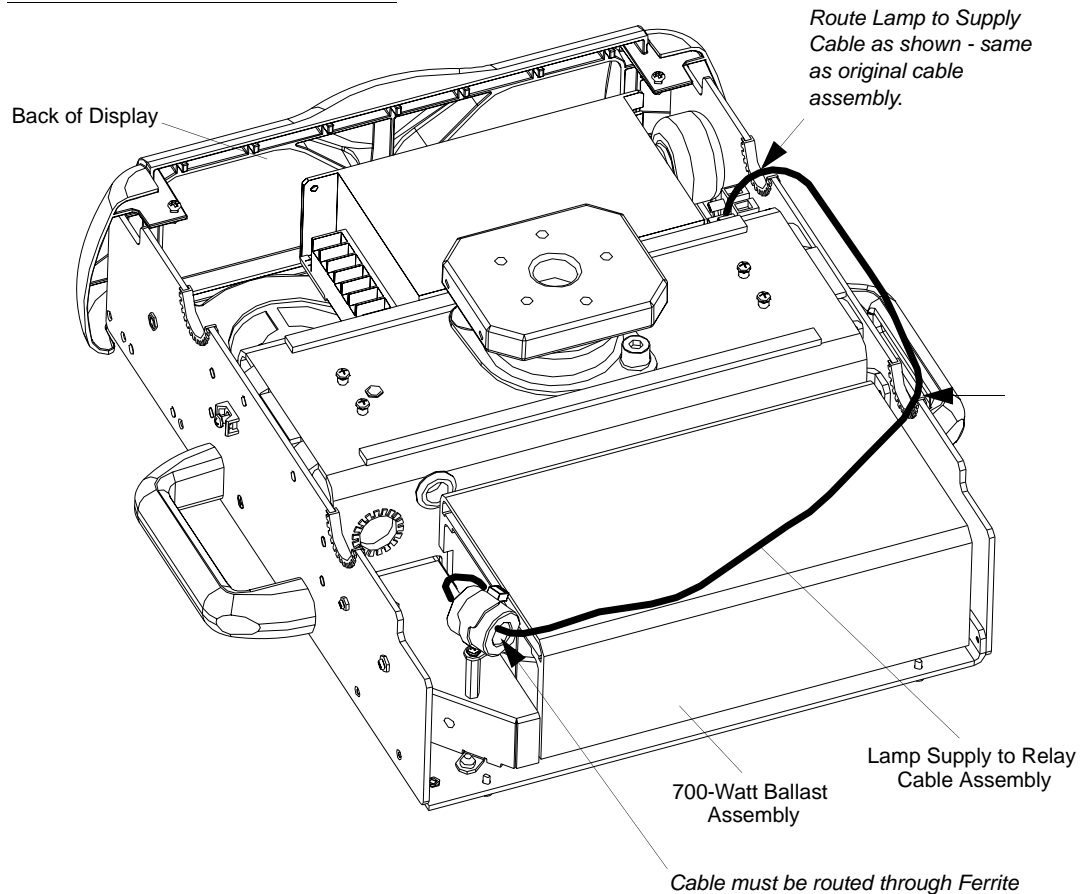


Figure 2-19: Ballast Module Assembly Replacement

Pan Motor / Pan Belt Assembly Replacement

Parts:

21.9678.0864 - Pan Motor Assembly

54.2055.0001 - Pan Motor Belt

To remove and replace pan motor assembly:

- Step 1. Using console or internal menus, run lens as far to the rear as possible.
- Step 2. Disconnect luminaire AC input cable from power source.
- Step 3. At each top enclosure cover, remove two 6-32 x 1/4" PPB screws and remove cover.
- Step 4. In each corner from top, remove four 6-32 x 3/8" PPZ screws.



CAUTION: Be careful not to damage lens during next step.

- Step 5. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.
- Step 6. At bottom of enclosure, remove four 1/4-20 x 1/2" socket screws and 1/4" split lock washers and remove ventilation cover.
- Step 7. Remove pan motor side handle by removing two 10-32x5/8" PPB screws.
- Step 8. At enclosure bottom, remove two 6-32 x 1/4" PPB screws and pan motor side cover.
- Step 9. At side of enclosure, remove two 6-32 x 3/8" PFZ screws and two 6-32 KEPS nuts that hold two cable saddles. Pull wiring out of way of pan motor.
- Step 10. Loosen (but do not remove) four 10-32 x 3/4" SCB Cap screws.
- Step 11. Move pan motor assembly toward pan pulley and remove belt.
- Step 12. Remove four 10-32x3/4" SCB Cap screws.
- Step 13. Pull assembly out (be mindful of tension springs).
- Step 14. Disconnect wiring.
- Step 15. Replace by performing Steps 3 through 14 in reverse order.



Note: Make sure wiring is not pinched during installation. When tightening four 10-32x3/4" SCB Cap screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.

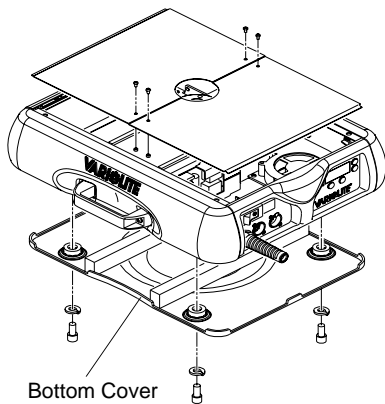
To remove and replace pan motor belt:

- Step 1. Using console or internal menus, run lens as far to the rear as possible.

- Step 2. Disconnect luminaire AC input cable from power source.
- Step 3. At each top enclosure cover, remove two 6-32 x 1/4" PPB screws and remove cover.
- Step 4. Disconnect the following cable assemblies:
 - a. Disconnect lamp wire from J202 and J203.
 - b. Disconnect DC wire from LVS.
 - c. Disconnect DMX wire from DMX PCB.
 - d. Disconnect Display wire from Display.
 - e. Remove ground wire from chassis.
- Step 5. Remove pan motor assembly. See [“To remove and replace pan motor assembly:” on page 39.](#)
- Step 6. Pass wire through routing hole in chassis
- Step 7. Remove belt.
- Step 8. Replace by performing steps 2 through 7 in reverse.



Note: Make sure wiring is not pinched during installation. When tightening four 10-32x3/4" SCB Cap screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.



NOTE:
Head not shown for clarity.

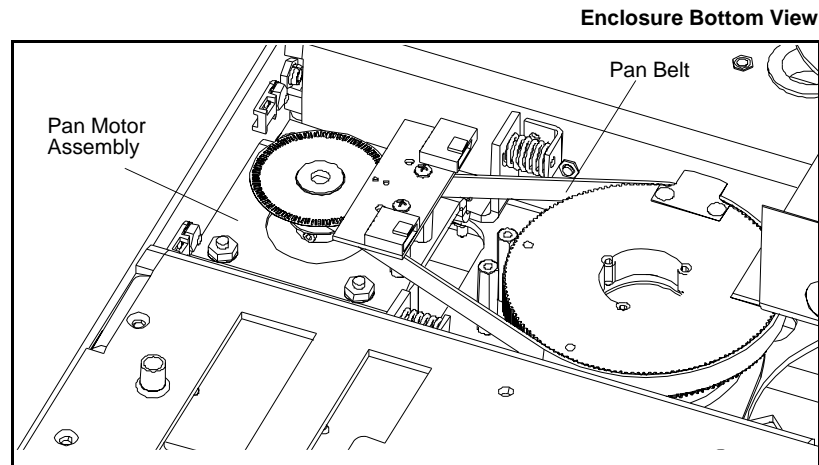


Figure 2-20: VL2500 Pan Motor Assembly Replacement

Pan Encoder Replacement

Parts:

24.9678.9729

To remove and replace pan encoder:

- Step 1. Using console or internal menus, run lens as far to the rear as possible.
- Step 2. Disconnect luminaire AC input cable from power source.



CAUTION: Be careful not to damage lens during next step.

- Step 3. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.
- Step 4. At bottom of enclosure, remove four 1/4-20 x 1/2" socket screws and 1/4" split lock washers and remove ventilation cover.
- Step 5. At encoder PCB, remove two 4-40 x 1/4" PPZ screws.
- Step 6. Disconnect wiring from encoder board.
- Step 7. Replace by performing Steps 3 through 6 in reverse order.



Note: Make sure the encoder disk passes freely through the optical sensor.

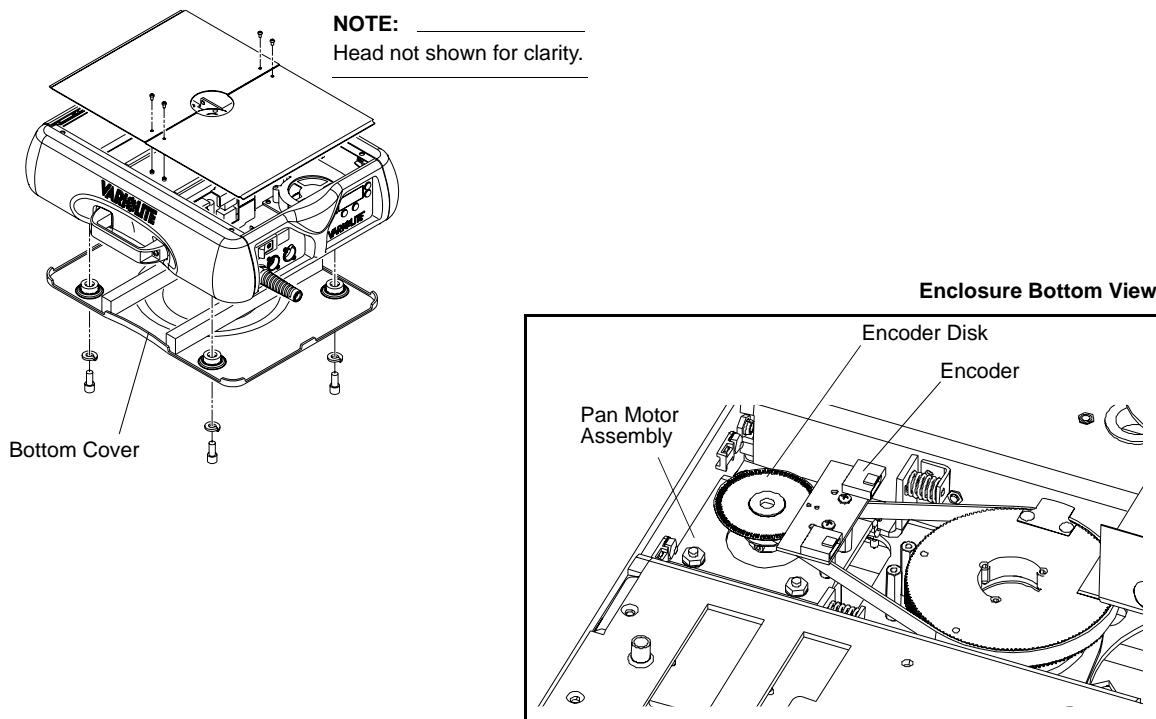


Figure 2-21: Pan Encoder Replacement

Pan EOT (End of Travel) Sensor Replacement

Parts:

86.7002.0003

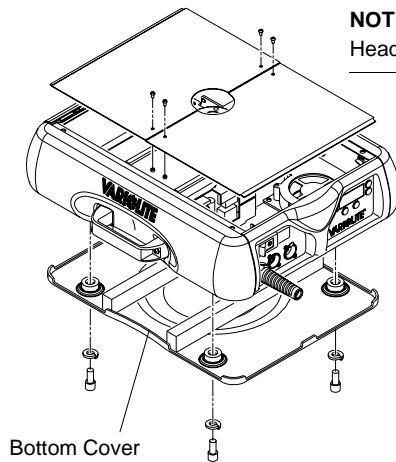
To remove and replace pan EOT sensor:

- Step 1. Using console or internal menus, run lens as far to the rear as possible.
- Step 2. Disconnect luminaire AC input cable from power source.



CAUTION: Be careful not to damage lens during next step.

- Step 3. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.
- Step 4. At bottom of enclosure, remove four 1/4-20 x 1/2" socket screws and 1/4" split lock washers and remove ventilation cover.
- Step 5. At pan sensor, remove two 6-32 x 3/8" PPZ screws.
- Step 6. Disconnect wiring from encoder PCB and remove sensor.
- Step 7. Replace sensor by performing Steps 3 through 6 in reverse order.



NOTE: _____
Head not shown for clarity.

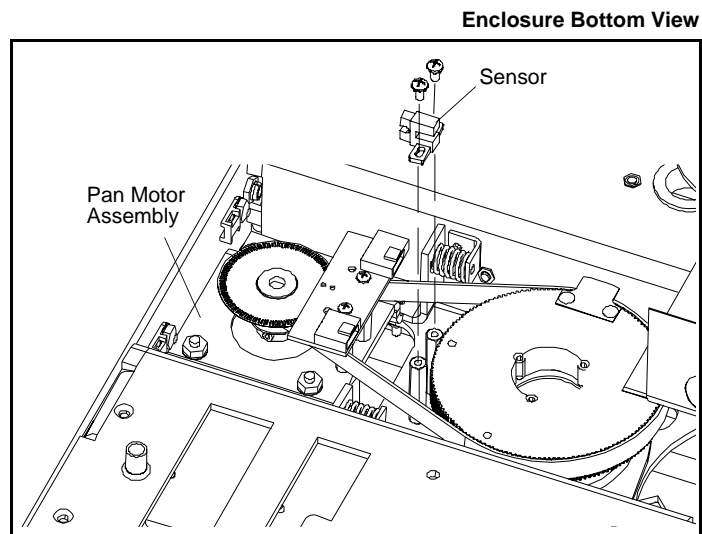


Figure 2-22: Pan EOT Sensor Replacement

LVS (Low-Voltage Supply) Power Supply Replacement

Parts:

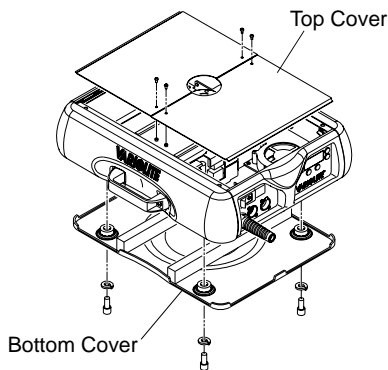
69.3177.0151

To remove and replace LVS power supply:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. At enclosure, remove two 6-32 x 1/4" LG PPZ screws from display side cover and remove cover.
- Step 3. At power supply, disconnect wiring:

Location	Connector
N	White AC Wires
L	Black AC Wires
V +	Red DC Wires
V +	Red DC Wires
V -	Black DC Wires
V -	Black DC Wires

- Step 4. Remove one 6-32 x 3/8" LG PPZ screw.
- Step 5. Loosen two 6-32 x 3/8" LG PPZ screws and slide LVS towards upper enclosure fan to remove.
- Step 6. Replace by performing Steps 2 through 5 in reverse order.



NOTE: _____
 Head not shown for clarity.

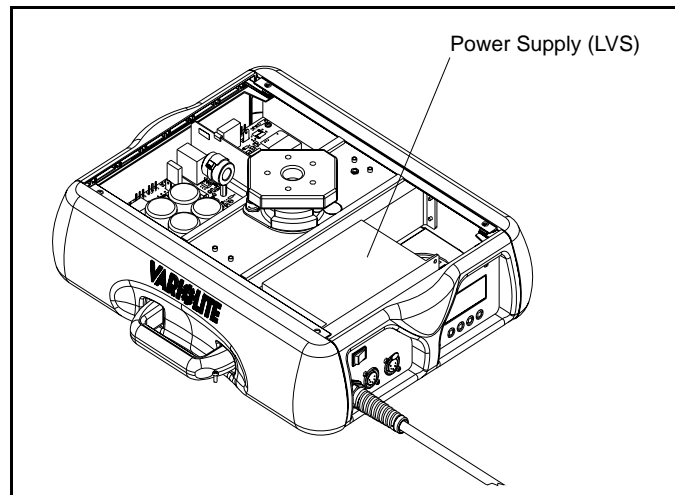


Figure 2-23: Power Supply (LVS) Replacement

Notes

CHAPTER 3.

Illustrated Parts Breakdown

This chapter contains illustrated parts breakdowns for assemblies in the VL2500™ Wash Luminaire.

- **Drawing Tree**
- **Top Assembly**
- **Yoke**
- **Enclosure**
- **Cables**



WARNING: All maintenance procedures are to be performed with power removed from the luminaire. Never remove cover or backcap while lamp is in operation.



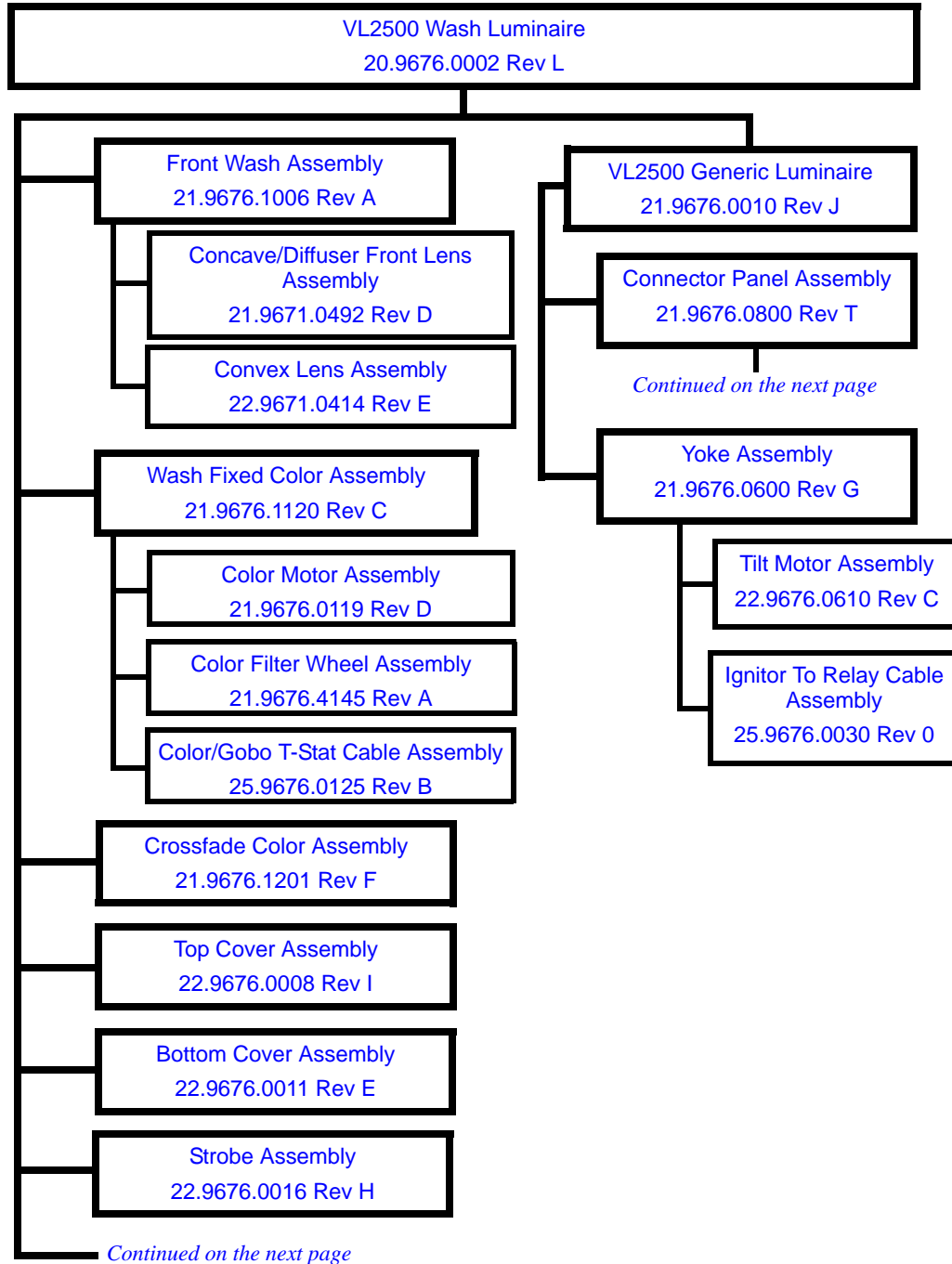
WARNING: Maintenance, repairs, and adjustments should only be performed by a qualified, factory-trained service technician at an Authorized VARI*LITE® Service Center.



SERVICE

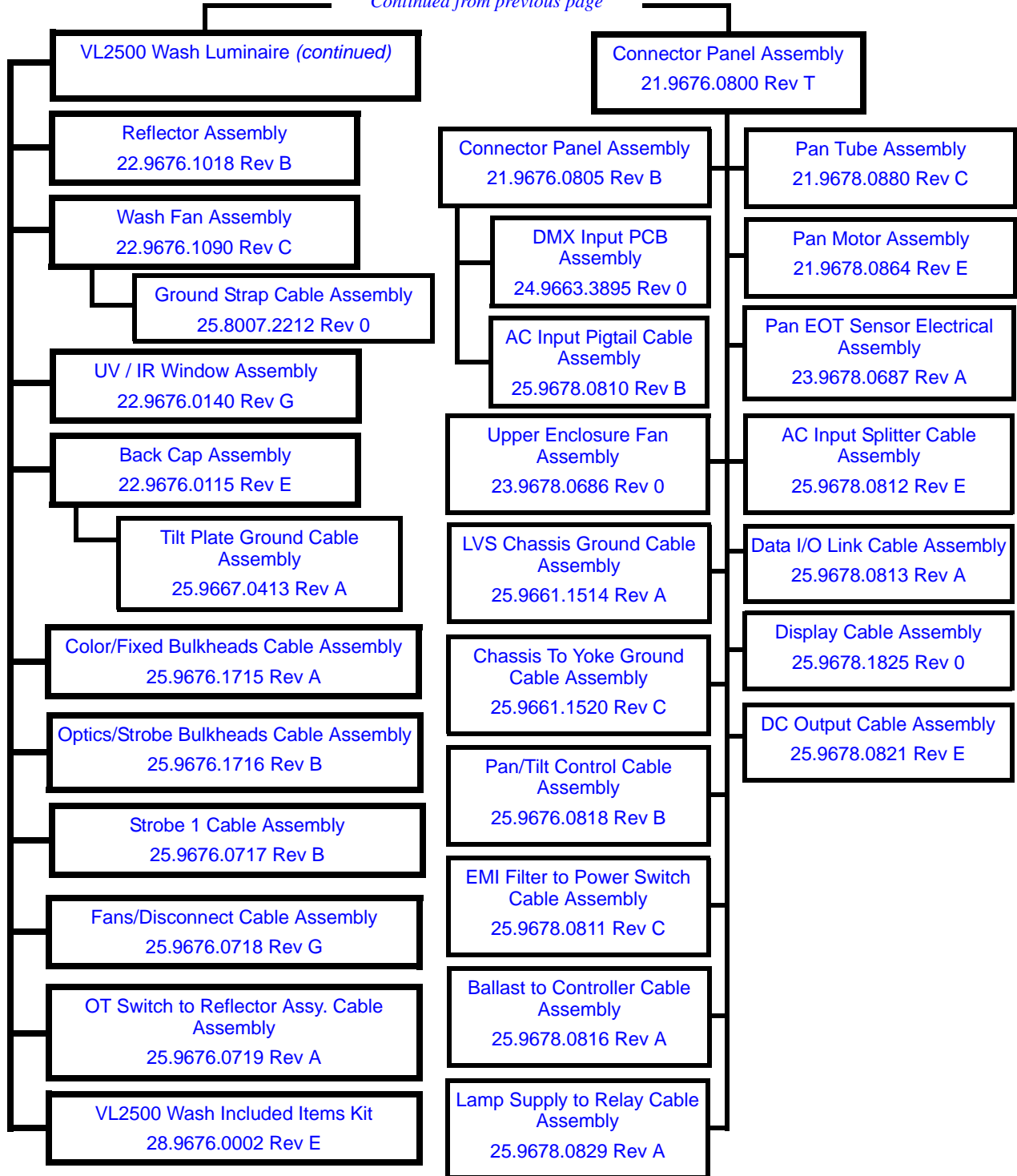
Drawing Tree

VL2500™ Wash Luminaire



Drawing Tree (continued)

Continued from previous page



Top Assembly

VL2500 Wash Included Items Kit

28.9676.0002 Rev E

Refer to [Figure 3-1](#).

No.	Item	Qty.	UM.	Description
1	02.8001.0001	1	EA	PRODUCT SUPPORT SHEET, VARI-LITE CUSTOMER SERVICE
2	02.8001.0002	1	EA	VARI-LITE QUALITY ASSURANCE CERTIFICATE (NOT SHOWN)
3	02.8052.0001	1	EA	CARD, LIMITED WARRANTY
4	02.8406.0001	1	EA	TAG, LAMP NOTICE
5	02.8700.0001	1	EA	CARD, PRODUCT REGISTRATION - 2000 SERIES (09-09-02)
6	02.9676.0002	1	EA	UNPACK/QUICK START SHEET, VL2500
-	04.9676.0002	2	EA	SHIPPING BOX LABELS, VL2500 WASH (not shown)
7	07.9676.0035	1	EA	SHIPPING BOX, CARDBOARD - VL2500
8	08.2500.0001	1	EA	CD-ROM, VL2500 LUMINAIRE
9	22.9661.1636	2	EA	FAB ASSY, BRACKET TRUSS HOOK
10	71.2528.0700	1	EA	700 WATT SHORT ARC-PHILIPS MSR575HR LAMP

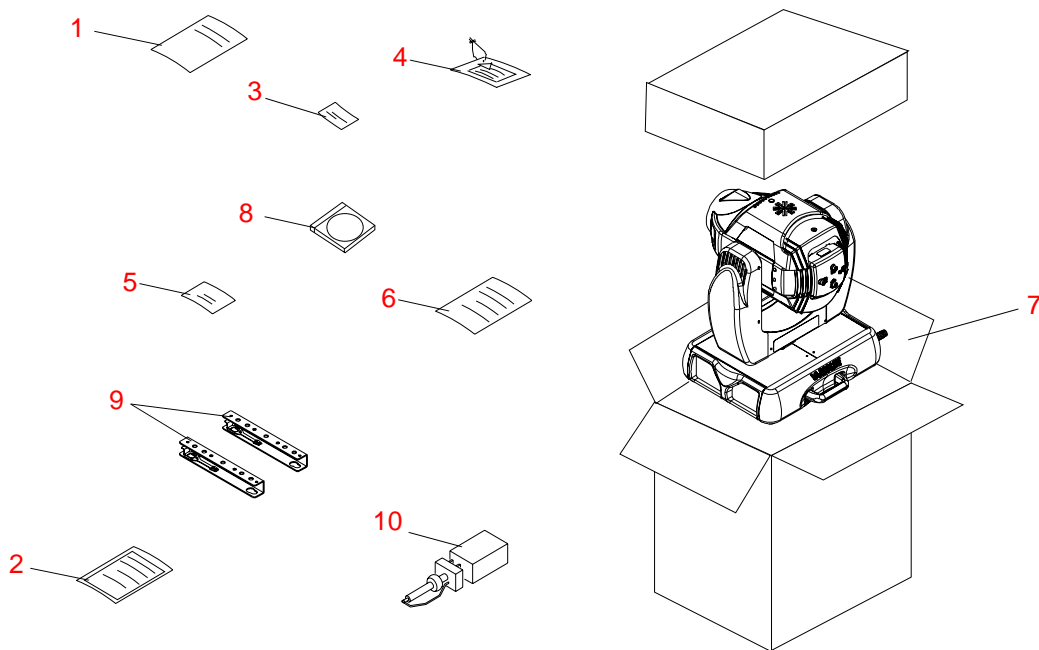


Figure 3-1: Included Items Kit

VL2500 Wash Luminaire

20.9676.0002 Rev L

Refer to [Figure 3-2](#).

No.	Item	Qty.	UM.	Description
1	10.9638.0052	1	EA	DAM, AIR, VL6
2	10.9676.8632	2	EA	COVER, YOKE THERMOFORM
3	16.9676.0004.02	2	EA	LABEL LOCATION, VL2500 LUMINAIRE (not shown)
4	21.9676.0023	1	EA	ASSY, FRONT COVER
5	21.9676.0010	1	EA	GENERIC LUMINAIRE, VL2500
6	21.9676.1006	1	EA	ASSY, FRONT, WASH
7	21.9676.1120	1	EA	ASSY, FIXED COLOR, WASH
8	21.9676.1201	1	EA	ASSY, CROSSFADE COLOR, WASH
9	22.9676.0008	1	EA	ASSY, TOP COVER
10	22.9676.0011	1	EA	ASSY, BOTTOM COVER
11	22.9676.0016	1	EA	ASSY, STROBE
12	22.9676.0115	1	EA	ASSY, BACK CAP
13	22.9676.0140	1	EA	ASSY, UV / IR WINDOW
14	22.9676.1018	1	EA	ASSY, REFLECTOR
15	22.9676.1090	1	EA	ASSY, FAN, WASH
-	25.9676.0717	1	EA	CABLE ASSY, STROBE 1 (not shown)
-	25.9676.0718	1	EA	CABLE ASSY, FAN / DISCONNECT (not shown)
-	25.9676.0719	1	EA	CABLE ASSY, OT SWITCH TO REFLECTOR ASSY (not shown)
-	25.9676.1715	1	EA	CABLE ASSY, COLOR / FIXED (not shown)
-	25.9676.1716	1	EA	CABLE ASSY, OPTICS / STROBE (not shown)
-	28.9676.0002	1	EA	INCLUDED ITEMS KIT, VL2500 LUMINAIRE (not shown)
16	53.2200.0006	1	EA	NUT, KEPS #6-32 SS
17	53.6523.0013	8	EA	SCREW, 6-32 X 3/8" PTB
18	53.6558.0009	4	EA	SCREW, 6-32 X 3/8" PPZ, SEMS
19	53.6558.0010	12	EA	SCREW, 6-32 X 1/4" PPB, SEMS
20	53.6625.0001	2	EA	SCREW, 10-32 X 1/2" PPB
21	53.6682.0022	1	EA	SCREW, 8-32 X 3/8" PPZ SEMS
22	55.2178.0001	1	EA	ANCHOR, CABLE MOUNT, #8 SCREW
23	55.6663.0007	1	EA	STANDOFF, 3/8" RND, 1.75" LG, FF
24	55.6669.0017	4	EA	STANDOFF, 1/4" HEX, 6-32, 1.062"

VL2500 Wash Luminaire (continued)

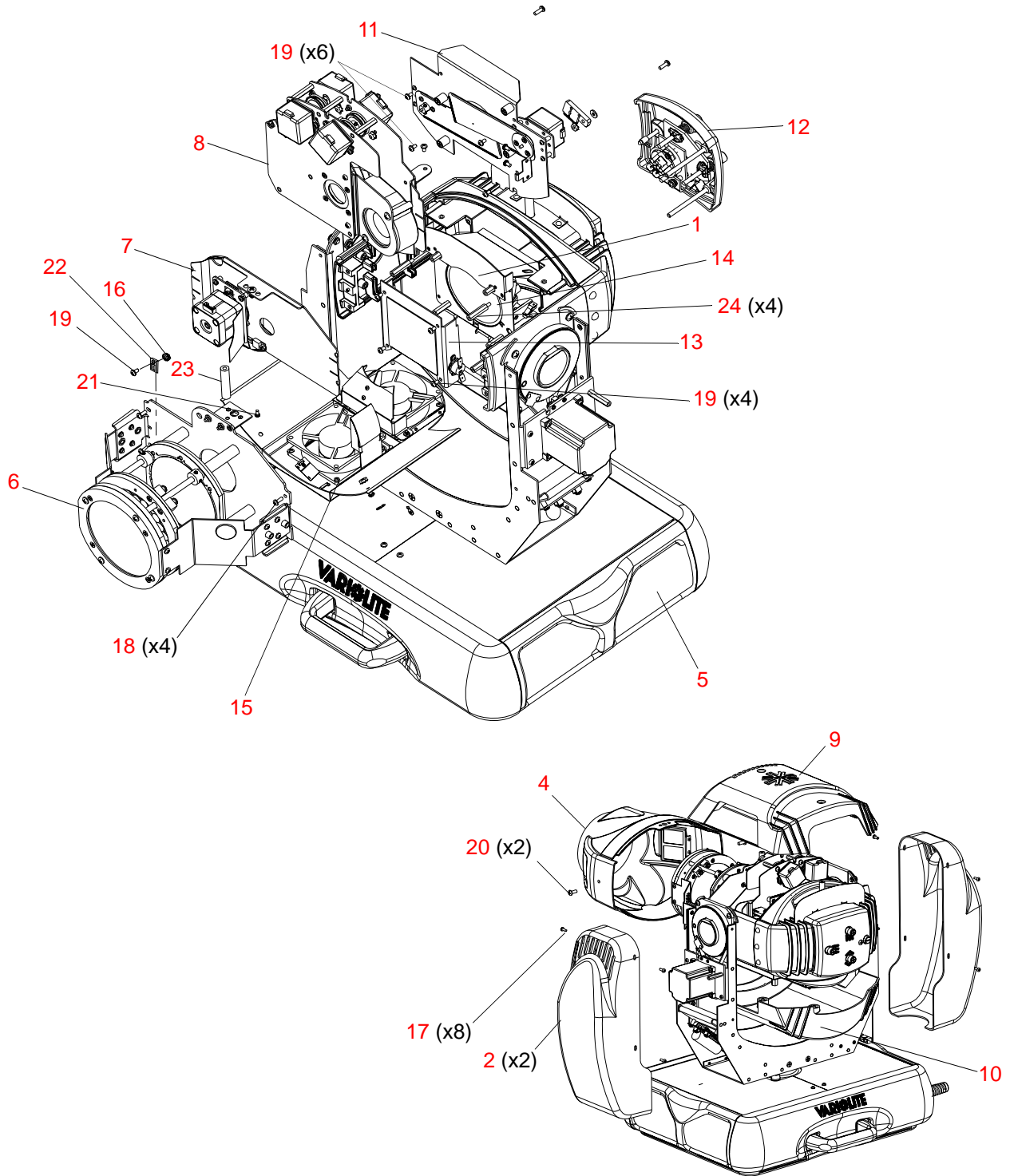


Figure 3-2: VL2500 Wash Luminaire Top Assembly

VL2500 Generic Luminaire

21.9676.0010 Rev J

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

No.	Item	Qty.	UM.	Description
1	10.9628.0211	1	EA	STABLIZER, PAN/TILT
2	10.9676.8617	1	EA	YOKE CROSSMEMBER, HEATSHIELD, VL2000
3	10.9676.0083	1	EA	BAFFLE, REAR CASTING
4	10.9676.0163	1	EA	HARNESS, GUARD, RIGHT
5	10.9676.0161	1	EA	HARNESS, GUARD, LEFT
6	21.9676.0139	1	EA	ASSY, REAR HEAD
7	21.9676.0600	1	EA	ASSY, YOKE
8	21.9676.0800	1	EA	UPPER ENCLOSURE
9	24.9676.3730	1	EA	ASSY, VL2500 MAIN CONTROL BOARD (MCB)
10	53.6505.0020	5	EA	BOLT, 1/4-28 X 3/4" HX HD GRD 8
11	53.6517.0001	8	EA	SCREW, 10-32 X 3/8" PPZ
12	53.6526.0001	1	EA	SCREW, 6-32 X 5/8" PPZ
13	53.6530.0006	2	EA	RIVET, POP, 1/8" OD X .188-.250" G
14	53.6539.0008	5	EA	WASHER, 1/4" FLAT
15	53.6553.0008	4	EA	SCREW, 10-32 X 9/16" PFB
16	53.6558.0009	4	EA	SCREW, 6-32 X 3/8" PPZ SEMS
17	53.6558.0010	8	EA	SCREW, 6-32 X 1/4" PPB SEMS
18	53.6682.0025	1	EA	SCREW, 8-32 X 5/8" PPZ SEMS
19	54.2039.0001	1	EA	BELT, GT TIMING 2 MM PITCH 182 GRV
20	55.2114.0001	8	EA	WASHER, #10 LOCK INT. TOOTH
21	55.6549.0001	5	EA	WASHER, 1/4" SPLIT LOCK
22	55.6603.0001	1	EA	SPRING, EXTENSION
23	55.6663.0007	1	EA	STANDOFF, 3/8" RND., 1.75" LG FF
24	55.6677.0033	4	EA	WASHER, .281" OD, .125 ID, .032 THK
-	25.9667.0028	1	EA	CABLE ASSY, YOKE TO HEAD GROUND (NOT SHOWN)

VL2500 Generic Luminaire (continued)

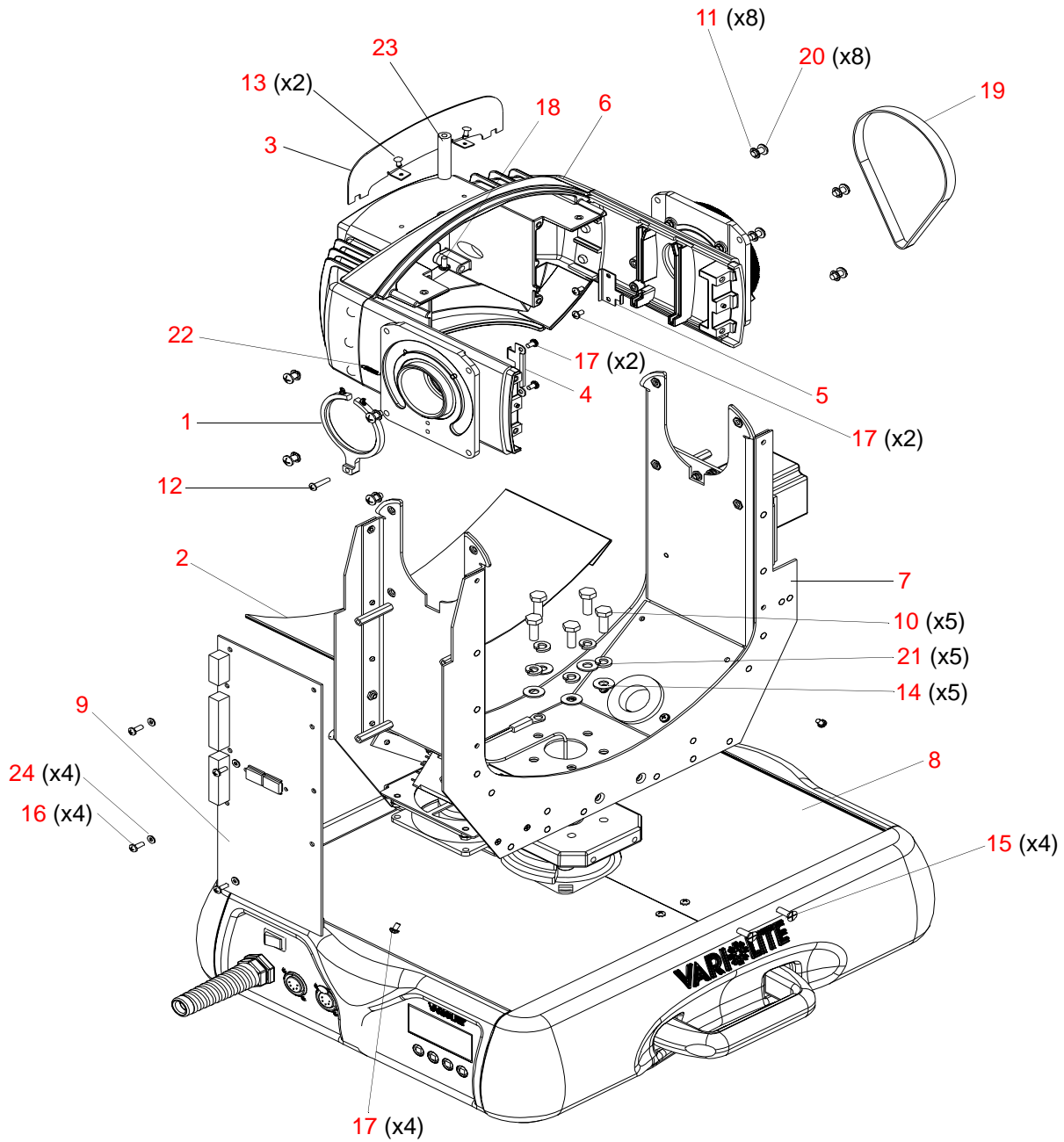


Figure 3-3: VL2500 Generic Luminaire Assembly

Front Wash Assembly

21.9676.1006 Rev A

Refer to [Figure 3-4](#).

No.	Item	Qty.	UM.	Description
1	10.9671.0219	4	EA	LENS SHAFT
2	10.9671.0223	4	EA	SHAFT COLLET
3	10.9671.0313	2	EA	LENS SUPPORT ARM
4	10.9676.1347	1	EA	WASH LENS BULKHEAD, FRONT
5	21.9671.0492	1	EA	ASSY, CONCAVE / DIFF FRONT LENS
6	22.9667.0337	1	EA	ASSY, 1/4 TURN MOUNTING BRACKET
7	22.9671.0402	1	EA	100 MM CONDENSER LENS ASSY
8	22.9671.0414	1	EA	ASSY, CONVEX LENS
9	22.9671.0468	1	EA	ASSY, MOTOR, BEAM SPREADER
10	53.2200.0004	3	EA	NUT, 4-40 KEPS SS
11	53.5558.0188	8	EA	SCREW, 8-32 X .188" LG SET SS BRASS TIP UNC-2A
12	53.6521.0001	4	EA	SCREW, 8-32 X 1/2" PPB
13	53.6558.0001	2	EA	SCREW, 6-32 X 3/8" PPZ
14	53.6558.0007	12	EA	SCREW, 6-32 X 1/4" PPZ SEMS
15	53.6687.0375	4	EA	SCREW, 8-32 X 3/8" PFZ UNDERCUT
16	55.2203.0001	2	EA	SCREW, 4-40 X 1/4" PPZ
17	55.6506.0019	4	EA	SPACER, 1/2" OD, 1.844" LG 0.257" ID, RND SS BLK
18	55.6662.0001	2	EA	HOLE PLUG, 3/4" BRASS W/ BLK OXID
19	55.6520.0001	4	EA	WASHER, WAVE SPRING, 0.265" ID, 0.367" OD

Front Wash Assembly (continued)

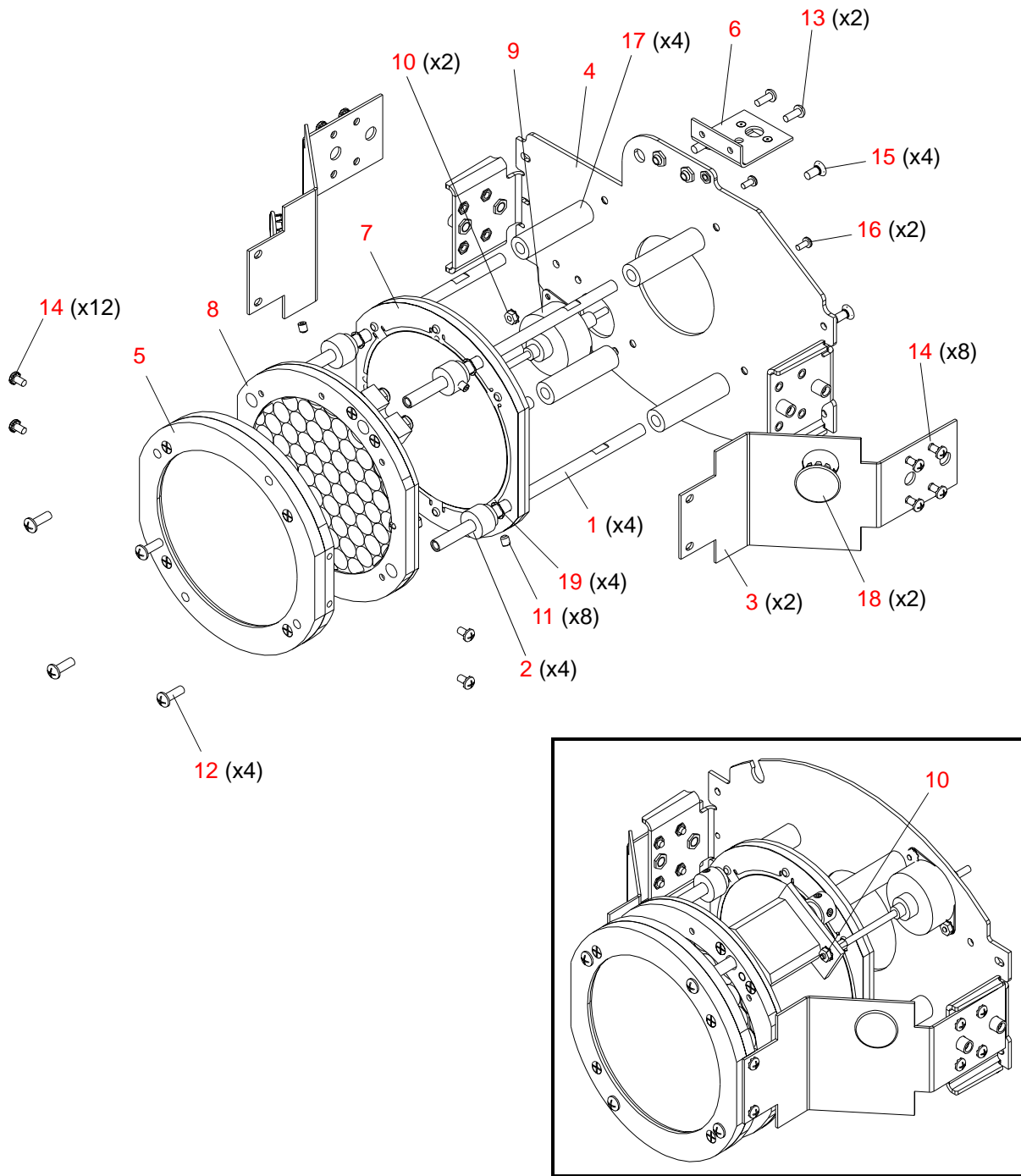


Figure 3-4: Front Wash Assembly

Concave/Diffuser Front Lens Assembly

21.9671.0492 Rev D

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

No.	Item	Qty.	UM.	Description
1	10.9676.1409	1	EA	BACK CLAMP, CONCAVE LENS
2	10.9671.0421	2	EA	LENS GASKET
3	10.9676.0491	1	EA	FRONT CLAMP, CONCAVE LENS
4	12.9676.0418	1	EA	LENS, CONCAVE ARRAY, MASKED, 107MM DIA.
5	42.9671.0490	1	EA	LENS, FRONT STIPPLE
6	53.6611.0001	4	EA	SCREW, 6-32 X 1/2" PFB
-	10.9676.7200	AR	EA	SPACER, LENS ARRAY 4.2" OD 4.0" ID X .039 THK (NOT SHOWN)

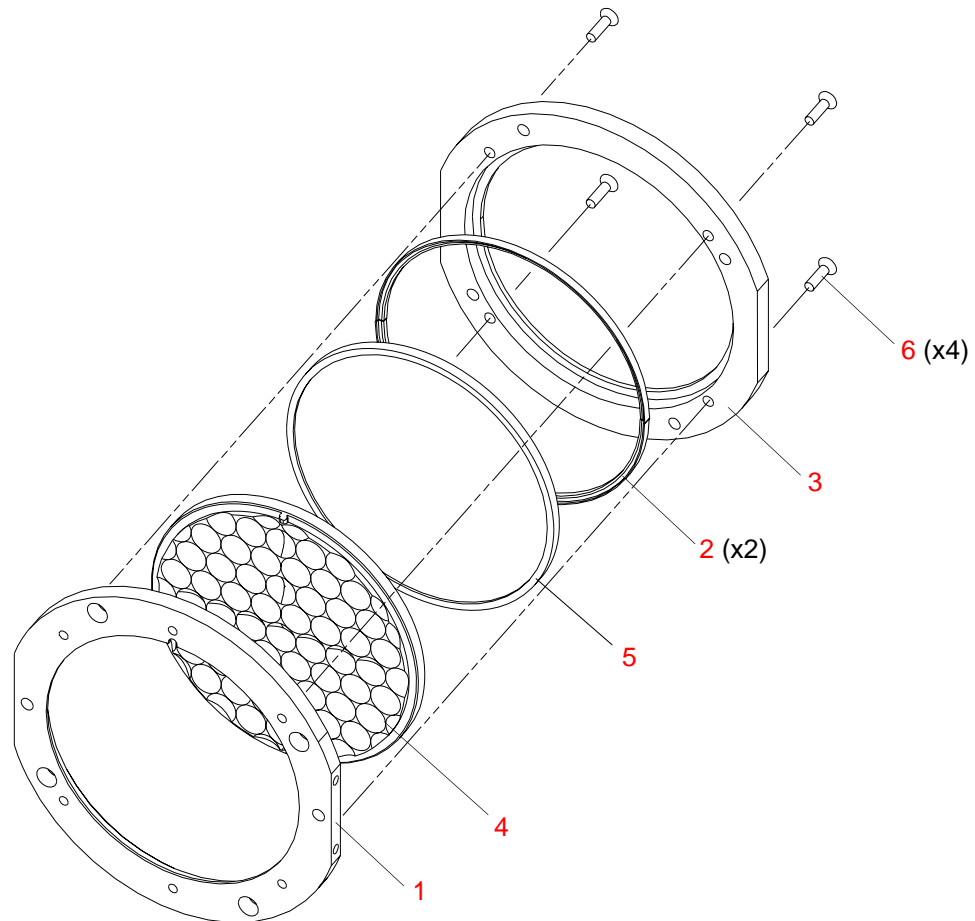


Figure 3-5: Concave/Diffuser Front Lens Assembly

Convex Lens Assembly

22.9671.0414 Rev E

Refer to [Figure 3-6](#).

No.	Item	Qty.	UM.	Description
1	10.9676.1419	1	EA	FRONT CLAMP, CONVEX LENS
2	10.9676.0420	1	EA	BACK CLAMP, CONVEX LENS
3	10.9671.0421	2	EA	LENS GASKET
4	10.9671.0463	1	EA	BUSHING, CONVEX LENS SLOTTED
5	10.9671.0464	1	EA	BUSHING, CONVEX LENS DRIVE
6	10.9671.0465	1	EA	PLATE, DRIVE BUSHING
7	12.9676.0416	1	EA	LENS, CONVEX ARRAY, MASKED, 107 MM DIA.
8	53.2202.0006	2	EA	NUT, 6-32 HEX SS NYLON INSERT
9	53.5808.2000	1	EA	SCREW, 8-32 X 2.00" LG SCSS CAP
10	53.6542.0001	8	EA	SCREW, 6-32 X 5/16" PFB
11	53.6608.0750	2	EA	SCREW, 6-32 X 3/4" LG PFB
12	53.6617.0002	2	EA	SCREW, 6-32 X 1" PFB

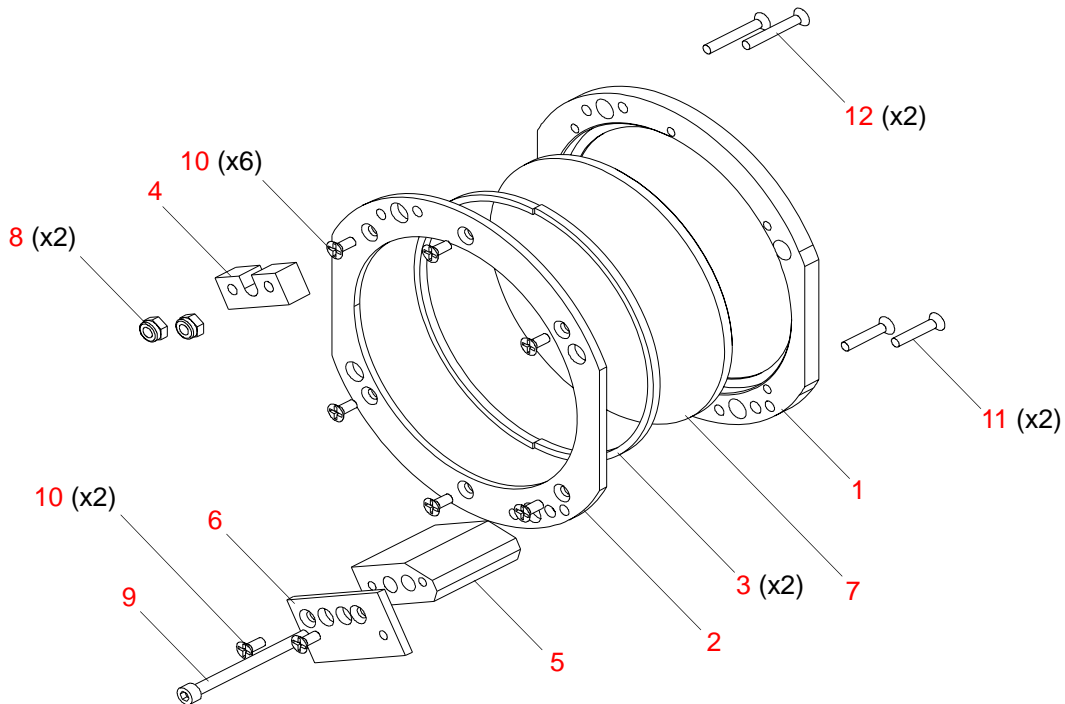


Figure 3-6: Convex Lens Assembly

Top Cover Assembly

22.9676.0008 Rev I

Refer to [Figure 3-7](#).

No.	Item	Qty.	UM.	Description
1	06.6018.0011	0.041	FT	VELCRO, DOUBLE HOOK, 2" BLACK ADH BACKED
2	07.5049.0001	1	EA	LANYARD, NYLON COATED, 8" LONG
3	10.9676.8009	1	EA	COVER, TOP VL2500
4	10.9676.0010	1	EA	FILTER, TOP HEAD COVER
5	12.9676.0076	1	EA	BAFFLE, RIGHT, TOP COVER
6	12.9676.0077	1	EA	BAFFLE, LEFT, TOP COVER
7	53.2008.0008	2	EA	PUSH NUT, #8
8	53.5655.0250	1	EA	SCREW, 6 X 1/4" PPZ PLASTIC
9	53.6521.0001	2	EA	SCREW, 8-32 X 1/2" PPB
10	53.6687.0250	4	EA	SCREW, 4-40 X 1/4" PFZ THREAD FORMING
11	55.3301.0006	1	EA	WASHER, #6 FLAT, SS
12	55.6599.0001	2	EA	WASHER, FLAT, #10 FLAT BLACK

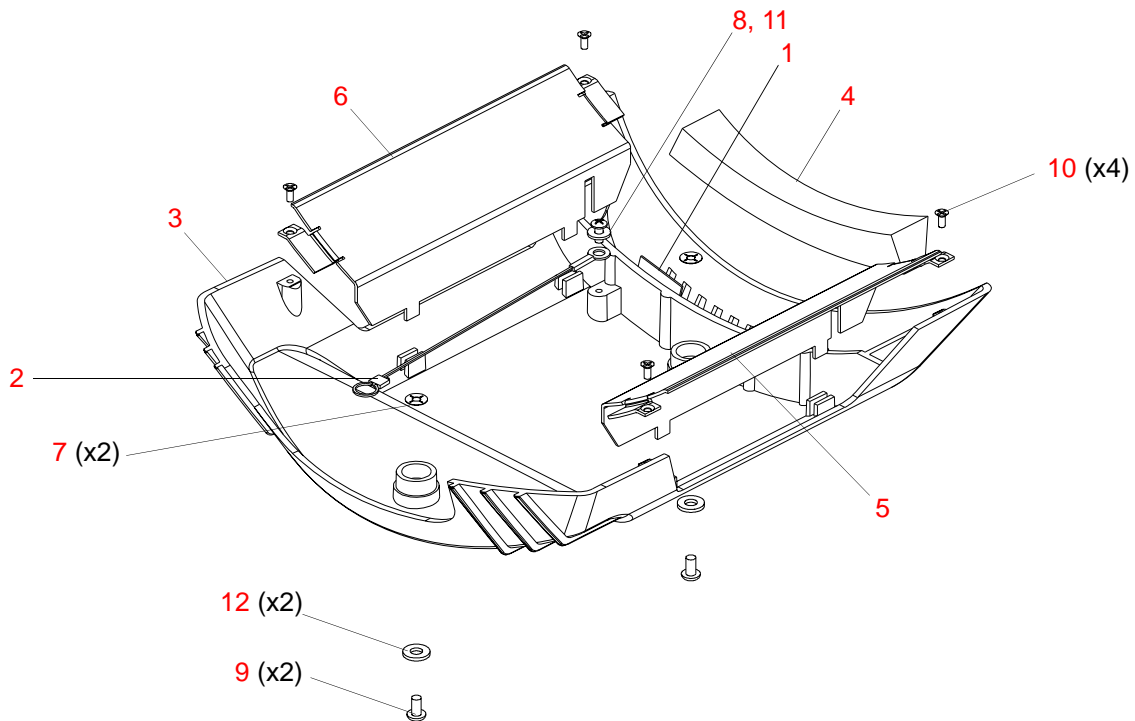


Figure 3-7: Top Cover Assembly

Bottom Cover Assembly

22.9676.0011 Rev E

Refer to [Figure 3-8](#).

No.	Item	Qty.	UM.	Description
1	10.9676.8012	1	EA	COVER, BOTTOM VL2500
2	53.2008.0008	3	EA	NUT, #8 PUSH
3	53.6521.0001	3	EA	SCREW, 8-32 X 1/2" PPB
4	53.6599.0001	3	EA	WASHER, #10 FLAT BLACK

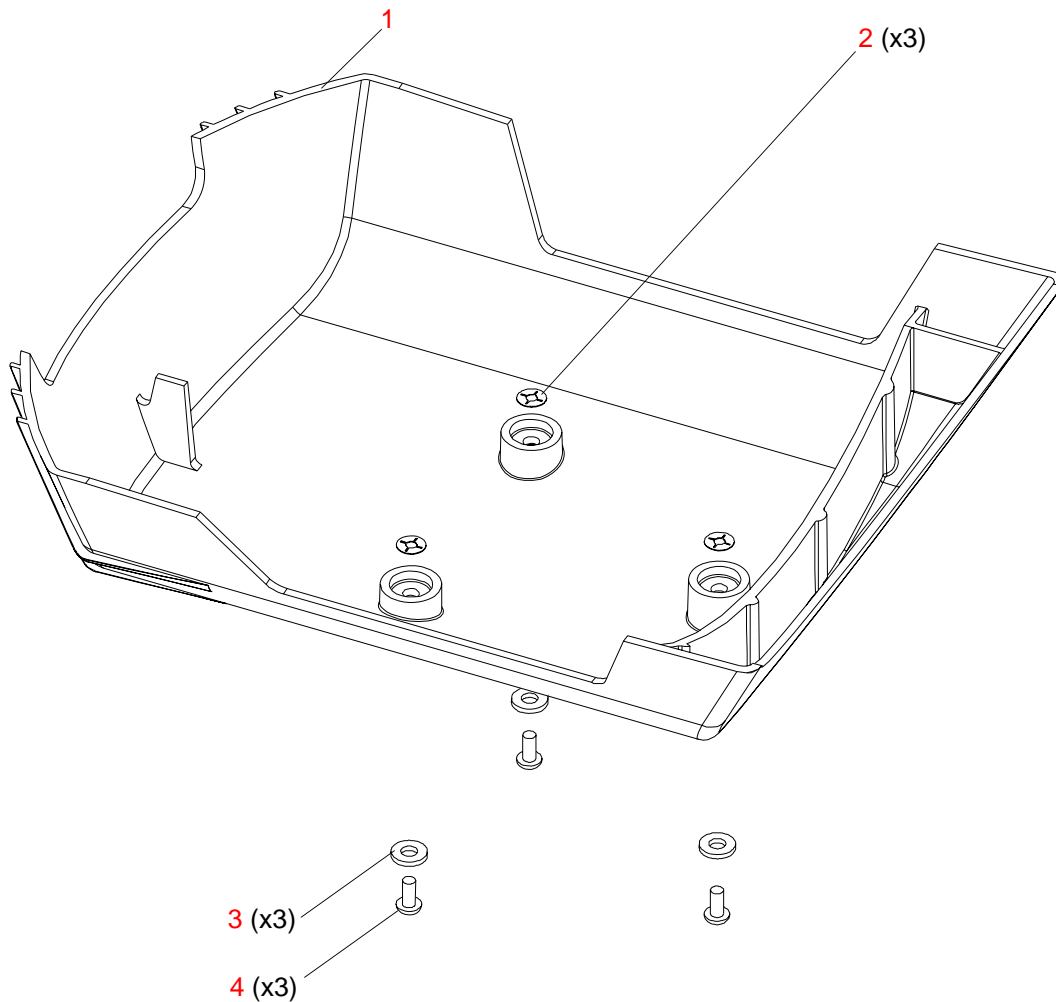


Figure 3-8: Bottom Cover Assembly

Reflector Assembly

22.9676.1018 Rev B

Refer to [Figure 3-9](#).

No.	Item	Qty.	UM.	Description
1	10.9678.0647	4	EA	CLAMP, MOUNTING, REFLECTOR
2	12.9660.7073	1	EA	ELLIPSOIDAL REFLECTOR, SMOOTH, COATED
3	22.9660.0338	1	EA	ASSY, DISCONNECT LAMP
4	22.9676.0130	1	EA	ASSY, REFLECTOR MOUNT
5	53.6599.0001	2	EA	SCREW, 4-40 X 3/8" PFZ
6	55.6669.0016	4	EA	STANDOFF, 1/4" HEX, 6-32 M/F, SS, L = 0.875"

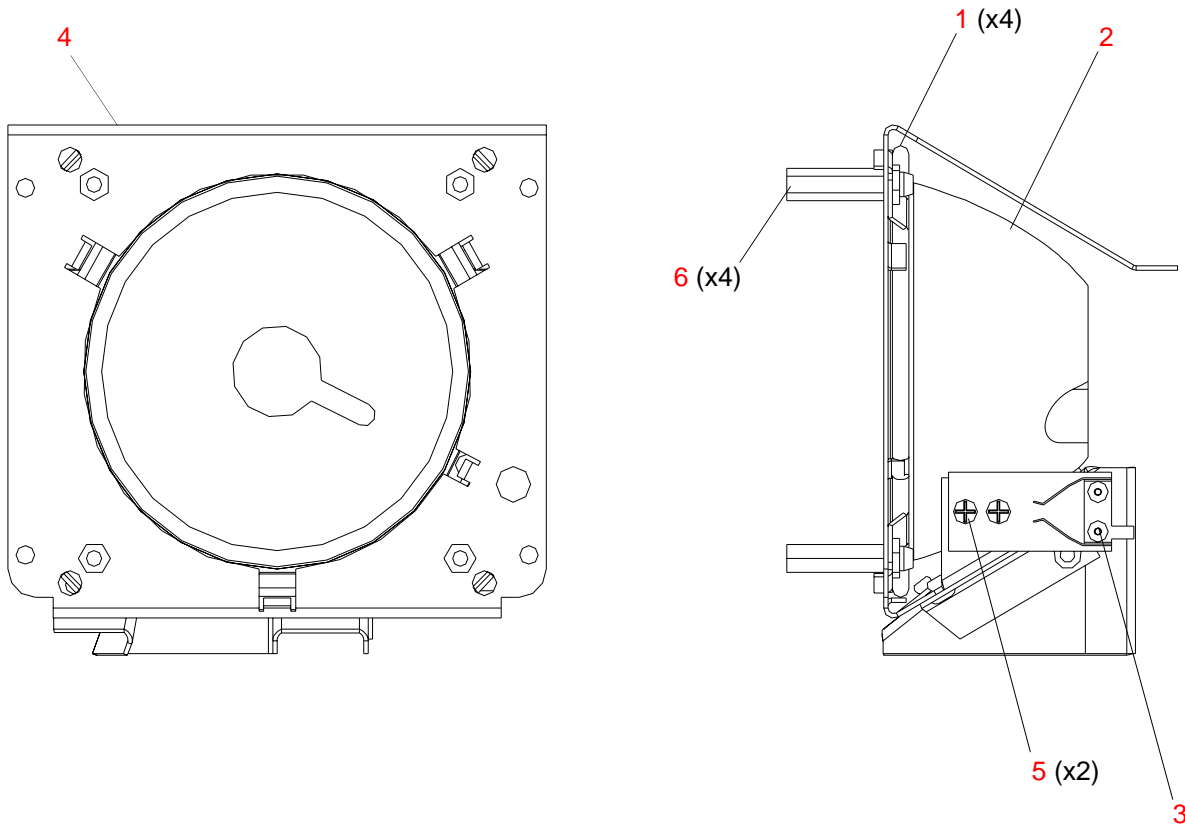


Figure 3-9: Reflector Assembly

Back Cap Assembly

22.9676.0115 Rev E

Refer to [Figure 3-10](#).

No.	Item	Qty.	UM.	Description
1	10.9638.0117	3	EA	KNOB, KNURLED, VL6 BACK CAP/LAMP ASSY.
2	10.9638.0128	1	EA	BRACKET, IGNITOR CABLE
3	10.9638.0130	1	EA	SPRING, BULB WIRE SHEATH
4	10.9638.0164	1	EA	WASHER, FELT
5	10.9667.0411	1	EA	LAMP CARRIAGE
6	10.9667.0412	1	EA	LAMP TILT PLATE
7	12.9676.8112	1	EA	BACKCAP, MACHINED, VL2500
8	22.9638.0129	1	EA	TETHER, VL6 BACKCAP
9	25.9667.0413	1	EA	CABLE ASSY, GROUND - TILT PLATE
10	52.8231.0005	2	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
11	53.2200.0010	1	EA	NUT, 10-32 KEPS SS
12	53.2201.0010	2	EA	NUT, 10-32 HEX SS
13	53.5638.1250	1	EA	SCREW, 1/4-28 X 1 1/4" CAPTIVE
14	53.6519.0001	2	EA	SCREW, 4-40 X 5/8" PPZ VL-1
15	53.6525.0001	1	EA	SCREW, 6-32 X 5/16" PPZ
16	53.6526.0001	2	EA	SCREW, 6-32 X 5/8" PPZ
17	53.6534.0001	4	EA	RIVET, 3/32" OD POP 3/32" GRIP RNG ALUM
18	53.6539.0011	1	EA	SCREW, 10-32 X 2 1/4" PFBSS UNF-2A
19	53.6539.0012	2	EA	SCREW, 10-32 X 2" PFBSS UNF-2A
20	53.6546.0002	2	EA	SCREW, 8-32 X 5/16" PPZ
21	53.6515.0001	1	EA	SCREW, 10-32 X 3/4" SCB CAP
22	10.9676.0071	1	EA	SWIVEL PLATE, LAMP ADJUST
23	55.2134.0003	2	EA	PLATE, FLOATING NUT 10-32
24	55.2260.0208	1.92	FT	SLEEVING, 0.208 ID SILICONE RUBBER COATED FIBERGLASS
25	55.3301.0006	3	EA	WASHER, #6 FLAT SS
26	55.3303.0004	2	EA	WASHER, #4 LOCK INT.TOOTH SS
27	55.6540.0001	2	EA	WASHER, #10 FLAT BRASS
28	55.6568.0017	1	EA	SPRING, CPRSN 0.480" OD 1.500" LG SS
29	55.6568.0036	2	EA	SPRING, CPRSN 0.360" OD .690" LG .032" WIRE DIA SS
30	55.6568.0048	2	EA	SPRING, CPRSN 0.480" OD 1.000" LG SS
31	71.2502.0003	1	EA	SOCKET, FASSUNG GY9.5 W/ 905 MM LEADS
32	53.6625.0001	1	EA	SCREW, 10-32 X 1/2" PPB

Back Cap Assembly (continued)

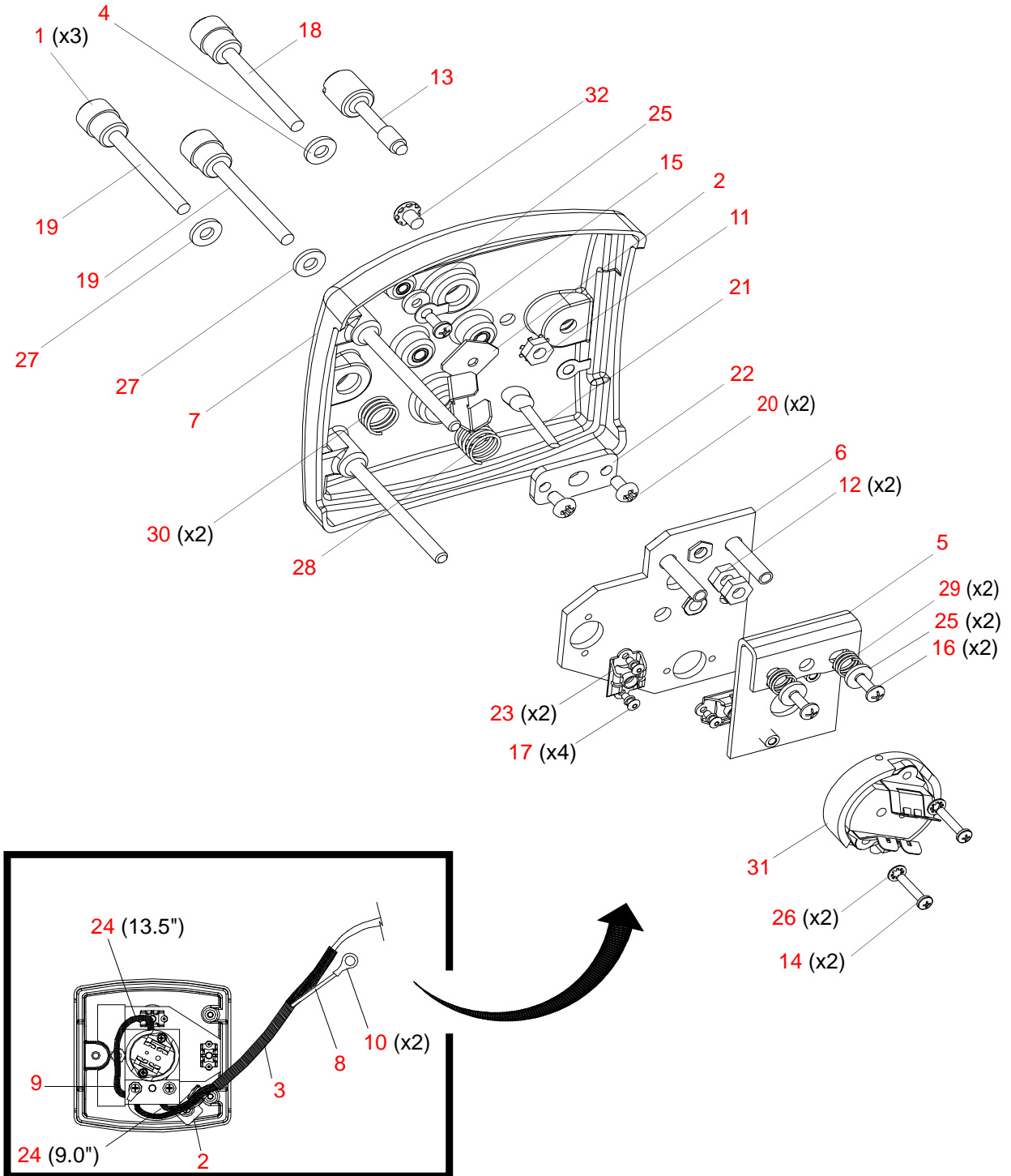


Figure 3-10: Back Cap Assembly

Wash Fan Assembly

22.9676.1090 Rev C

Refer to [Figure 3-11](#).

No.	Item	Qty.	UM.	Description
1	10.9676.1068	1	EA	AIR DUCT, FRONT FAN, WASH
2	22.9676.0091	1	EA	ASSY, FAN BULKHEAD
3	22.9676.0095	1	EA	AIR DUCT, REAR FAN
4	25.8007.2212	1	EA	CABLE ASSY, GROUND STRAP, #6 RING 3" LG
5	40.7113.0002	1	EA	FAN, +24 VOLT, 80 X 80 X 25MM, 39CFM
6	40.7146.0002	1	EA	DC FAN, 3.15" SQ X 1.0" BB LOW FLOW
7	52.6523.0005	1	EA	CONN, HOUSING, 5 POS. PLUG SHROUD
8	52.6524.0002	1	EA	CONN, HOUSING, 2 POS. RECEPTACLE
9	52.8346.0001	2	EA	CONTACT, 24-30 AWG FEMALE CRIMP
10	52.8347.0001	5	EA	CONTACT, 24-30 AWG, CRIMP MALE
11	52.8371.0001	1	EA	RECEPT., FASTON, 20-24 AWG, UNINSULATED
12	53.2200.0006	1	EA	NUT, KEPS #6-32 SS
13	53.5604.0375	8	EA	SCREW, 4-40 X 3/8", PPSS-B
14	53.6558.0010	1	EA	SCREW, 6-32 X 1/4" LG PPZ BLK
15	53.6596.0001	2	EA	SCREW, 4-40 X 5/16" PPZ
16	55.2186.0001	1	EA	CABLE TIE, .10" X 4" SMALL
17	55.2203.0001	2	EA	SCREW, 4-40 X 1/4" PPZ
18	55.6616.0008	3	EA	STANDOFF, 3/8" HEX 8-32 THRD 0.5" LG
19	73.1624.0008	1	FT	WIRE, 24 AWG 300V 200 DEG C TEFLON GRY
20	73.5127.0003	0.83	FT	WIRE, 26 AWG 300V 200 DEG C TEFLON RED
21	73.5127.0010	0.83	FT	WIRE, 26 AWG 300V 200 DEG C TEFLON BLK

Wash Fan Assembly (continued)

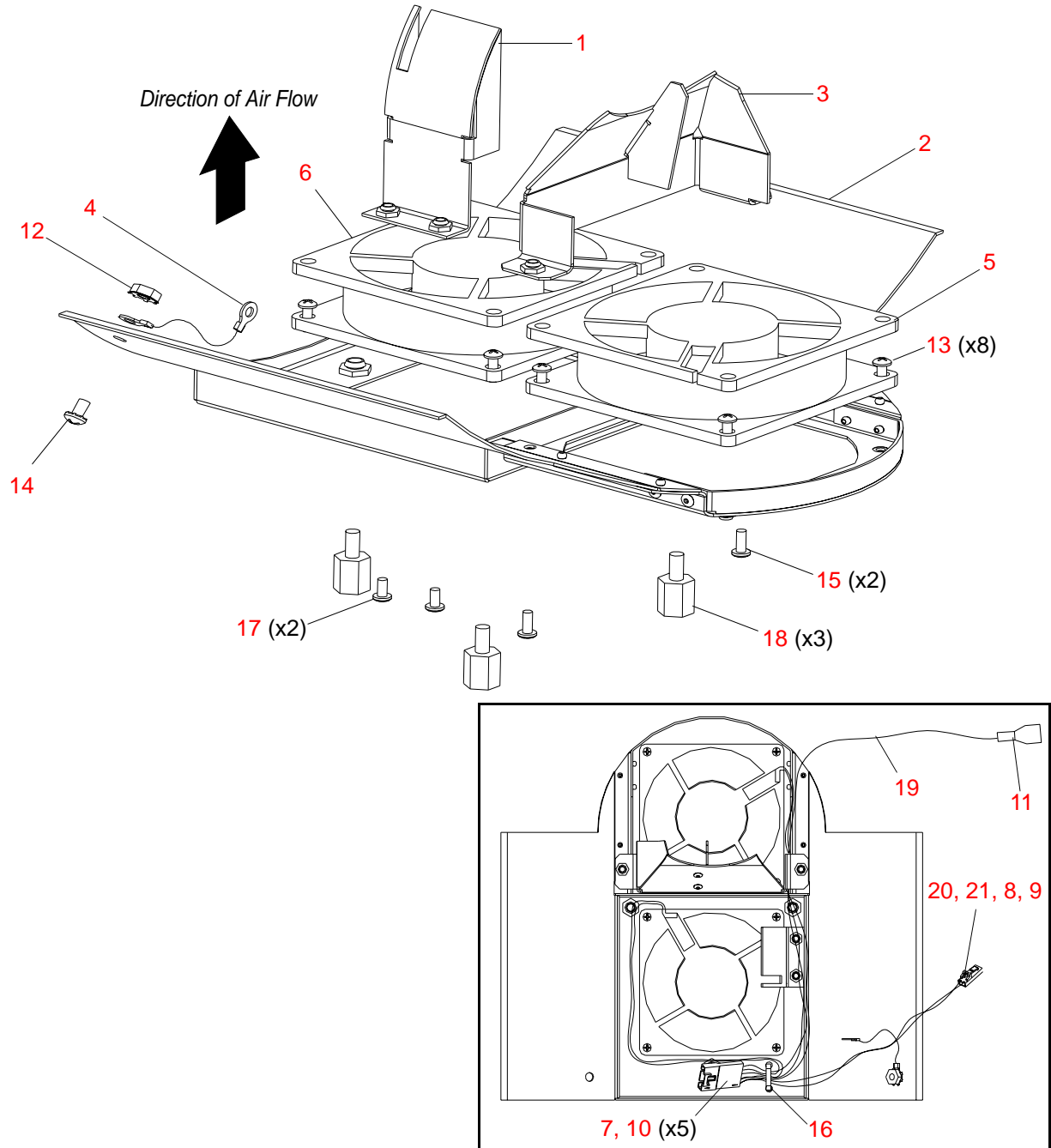


Figure 3-11: Wash Fan Assembly

Wash Fixed Color Assembly

21.9676.1120 Rev C

Refer to [Figure 3-12](#)

No.	Item	Qty.	UM.	Description
1	10.9671.0125	1	EA	BULKHEAD, LIGHT SHIELD, COLOR
2	10.9676.1181	1	EA	BULKHEAD, COLOR
3	21.9676.0119	1	EA	ASSY, COLOR MOTOR
4	21.9676.4145	1	EA	ASSY, FILTER WHEEL
5	25.9676.0125	1	EA	CABLE ASSY, T-STAT, COLOR/GOBO (not shown)
6	53.2200.0004	1	EA	NUT, 4-40 KEPS SS
7	53.6522.0001	3	EA	SCREW, 6-32 X 1/4" PFZ
8	53.6559.0001	1	EA	SCREW, 4-40 X 1/4" PFZ
9	55.2233.0003	1	EA	RETAINER, PUSH-ON TYPE
10	55.2233.0004	1	EA	STUD, 1/4-TURN OPR .415L STL Z
11	55.6504.0001	3	EA	WASHER, #6 LOCK EXT TOOTH

Wash Fixed Color Assembly (continued)

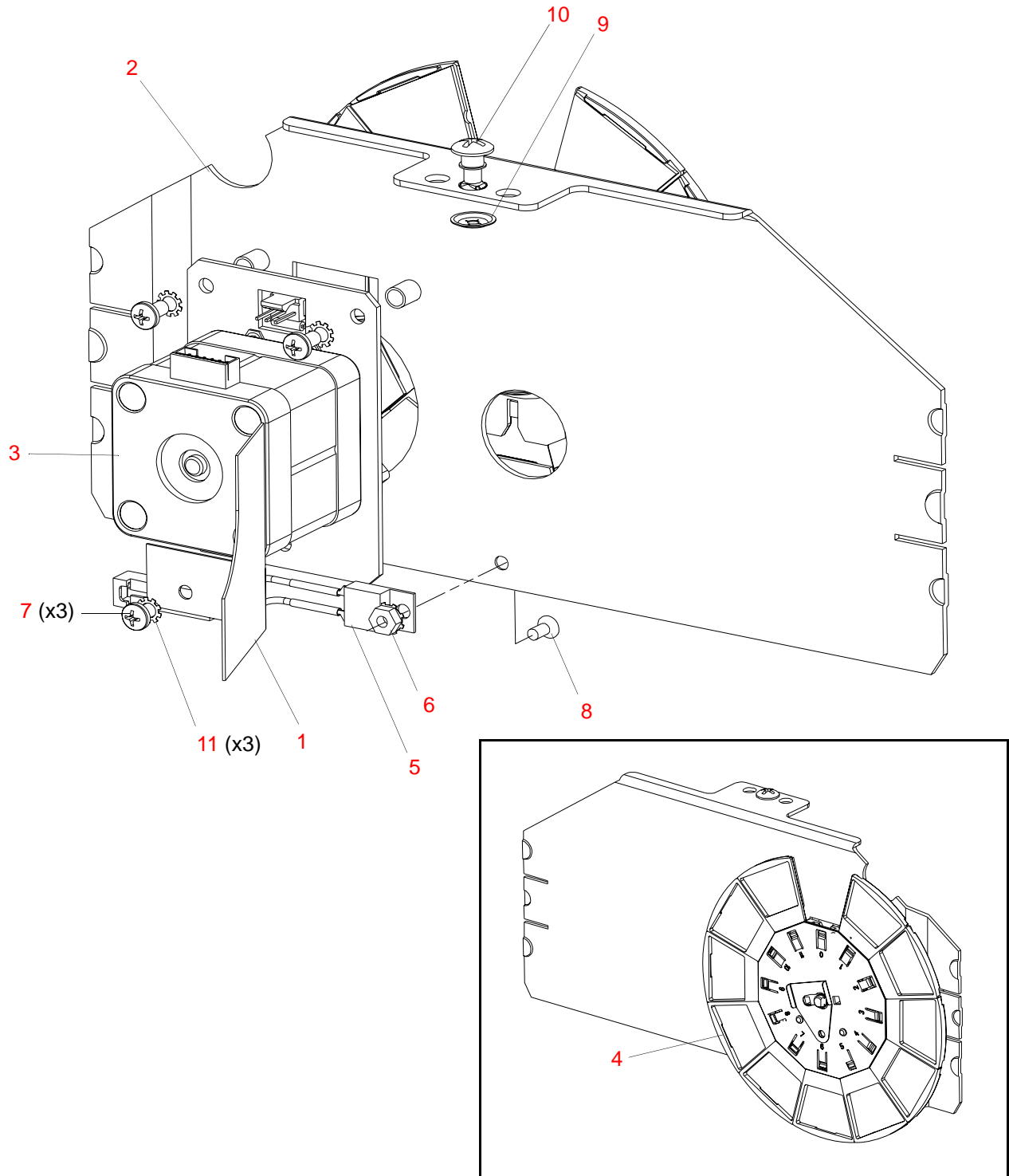


Figure 3-12: Wash Fixed Color Assembly

Crossfade Color Assembly

21.9676.1201 Rev F

Refer to [Figure 3-13](#).

No.	Item	Qty.	UM.	Description
1	10.9676.0230.01	4	EA	SPACER, COLOR WHEEL
2	10.9676.0230.02	1	EA	SPACER, COLOR MOTOR
3	10.9676.0234	1	EA	AFT BULKHEAD, CROSSFADE COLOR SYSTEM
4	10.9676.0235	5	EA	SPACER, BULKHEAD, COLOR SYSTEM
5	10.9676.0284	1	EA	SHAFT, COLOR SYSTEM
6	10.9678.0238	1	EA	SPACER 2, BULKHEAD, COLOR SYSTEM
7	10.9678.0485	4	EA	PULLEY, COLOR MOTOR
8	21.9676.0290	1	EA	ASSY, MAGENTA COLOR WHEEL
9	21.9676.0291	1	EA	ASSY, CYAN COLOR WHEEL
10	21.9676.0292	1	EA	ASSY, AMBER COLOR WHEEL
11	21.9676.0293	1	EA	ASSY, DIMMER WHEEL
12	21.9676.0298	1	EA	ASSY, SENSOR PCB/BRACKET
12a	10.9676.0272	1	EA	SENSOR BRACKET, COLOR SYSTEM
12b	24.9676.0299	1	EA	SENSOR BOARD, COLOR
12c	53.6682.0002	3	EA	SCREW, 4-40 X 1/4" PPZ SEMS
13	21.9676.1236	1	EA	ASSY, FAN, WASH
14	21.9676.1289	1	EA	ASSY, FRONT BULKHEAD/DIFFUSER
15	44.9676.0236	4	EA	MOTOR, COLOR
16	53.2200.0006	4	EA	NUT, 6-32 KEPS SS
17	53.2200.0008	1	EA	NUT, 8-32 KEPS SS
18	53.6520.0188	2	EA	SCREW, 4-40 X 3/16" PFZ UNDERCUT
19	53.6525.0001	4	EA	SCREW, 6-32 X 5/16" PPZ
20	53.6545.0001	5	EA	SCREW, 8-32 X 3/8" PPB
21	53.6558.0001	2	EA	SCREW, 6-32 X 3/8" PPZ
22	54.2049.0135	2	EA	BELT, TIMING MXL 0.08 PITCH 135 GRV
23	54.2059.0001	2	EA	BELT, TIMING MXL 0.08 PITCH 150 GRV
24	55.2179.0008	2	EA	SADDLE, LOCKING TOP, 0.067 HOLE
25	55.6503.0001	5	EA	WASHER, #8 LOCK INT. TOOTH
26	53.6596.0001	4	EA	SCREW, 4-40 X 5/16" PPZ
27	55.9676.0255	1	EA	BELLEVILLE SPRING WASHER, SPEC B0500-018-S
28	55.5559.0250	4	EA	SCREW, SET, CONE POINT, 6-32 X 1/4"

No.	Item	Qty.	UM.	Description
29	55.2110.0002	3	EA	WASHER, .400" OD X .260" ID X .010 THK
30	55.6545.0007	1	EA	SCREW, 8-32 X 3/8" PFB

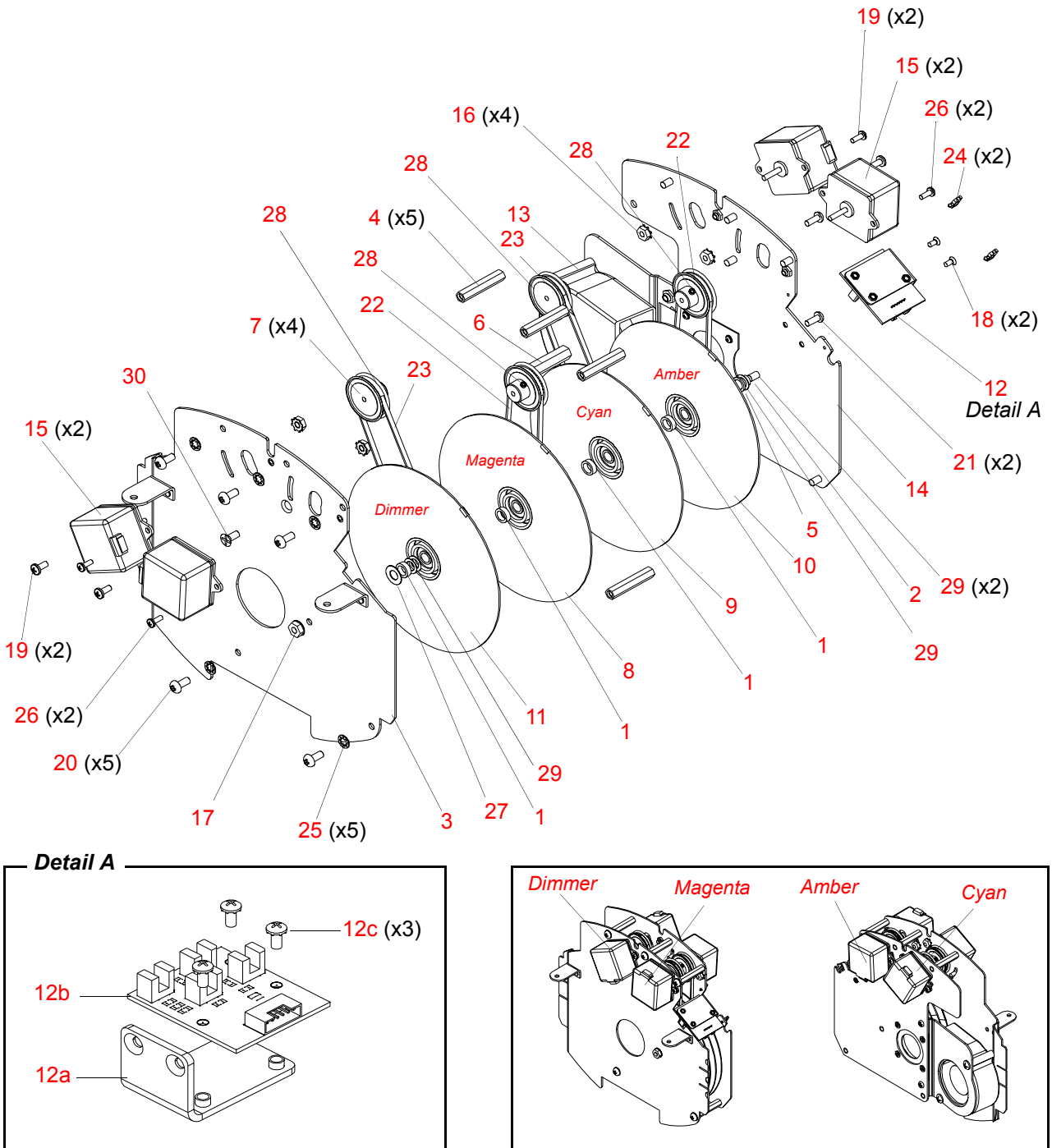


Figure 3-13: Crossfade Color Assembly

Color Motor Assembly

21.9676.0119 Rev D

Refer to [Figure 3-14](#).

No.	Item	Qty.	UM.	Description
1	10.9621.0097	1	EA	STABILIZER, STEPPER, GOBO WHEEL
2	10.9676.1120	1	EA	COLOR MOTOR BULKHEAD
3	24.9676.1114	1	EA	PCB ASSY, SENSOR, COLOR/GOBO
4	44.9676.0116	1	EA	MOTOR, GOBO/COLOR WHEEL
5	53.6597.0001	2	EA	SCREW, 4-40 X 3/16" PPZ
6	53.6599.0001	1	EA	SCREW, 4-40 X 3/8" PFZ
7	55.2203.0001	3	EA	SCREW, 4-40 X 1/4" PPZ
8	55.3301.0004	3	EA	WASHER, #4 FLAT SS
9	55.6512.0001	2	EA	WASHER, #4 SPLIT LOCK
10	55.6568.0016	1	EA	SPRING, EXTSN .125" OD.500" LG .018" WIRE DIA SS

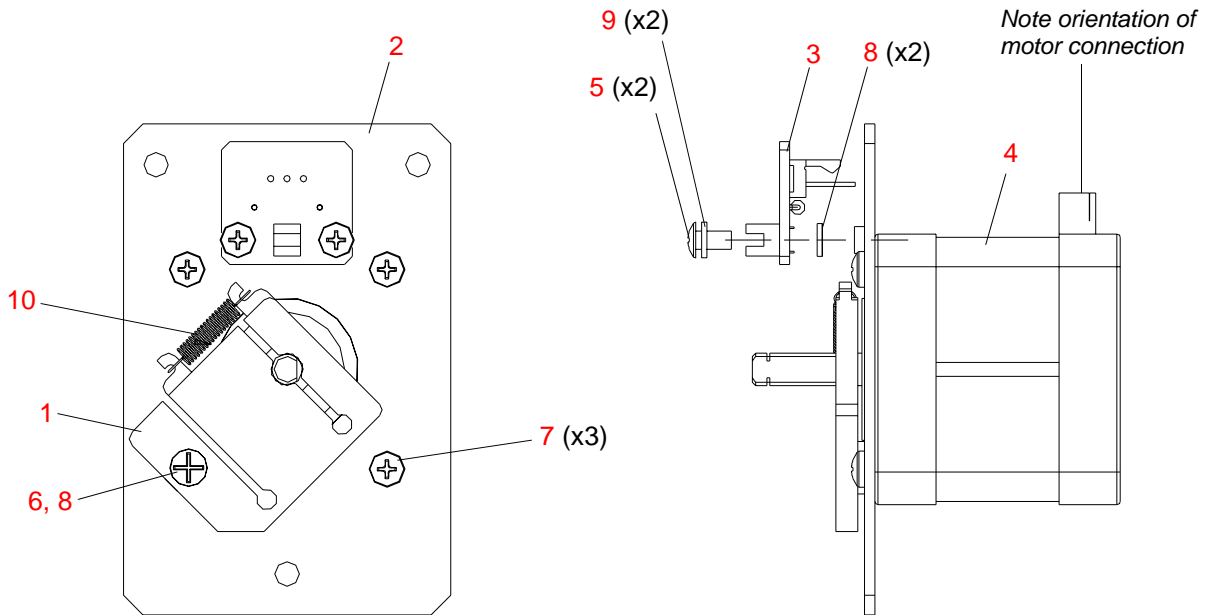


Figure 3-14: Color Motor Assembly

Color Filter Wheel Assembly

21.9676.4145 Rev A

Refer to [Figure 3-15](#).

No.	Item	Qty.	UM.	Description
1	22.9676.4142	1	EA	ASSY, GOBO WHEEL, 12 POSITION FIXED
2	41.6006.0020	1	EA	ASSY, VL6 FILTER, MAGENTA (ST)
3	41.6006.0150	1	EA	ASSY, VL6 FILTER, PINK (ST)
4	41.6006.0240	1	EA	ASSY, VL6 FILTER, LIGHT RED (ST)
5	41.6006.0320	1	EA	ASSY, VL6 FILTER, BASTARD AMBER #1 (ST)
6	41.6006.0440	1	EA	ASSY, VL6 FILTER, ORANGE (ST)
7	41.6006.0540	1	EA	ASSY, VL6 FILTER, YELLOW (ST)
8	41.6006.0660	1	EA	ASSY, VL6 FILTER, GREEN (ST)
9	41.6006.0820	1	EA </td <td>ASSY, VL6 FILTER, LT.BLUE-GREEN (ST)</td>	ASSY, VL6 FILTER, LT.BLUE-GREEN (ST)
10	41.6006.0850	1	EA	ASSY, VL6 FILTER, BLUE (ST)
11	41.6006.0960	1	EA	ASSY, VL6 FILTER, LAVENDER (ST)
12	41.6006.0990	1	EA	ASSY, VL6 FILTER, UV (ST)

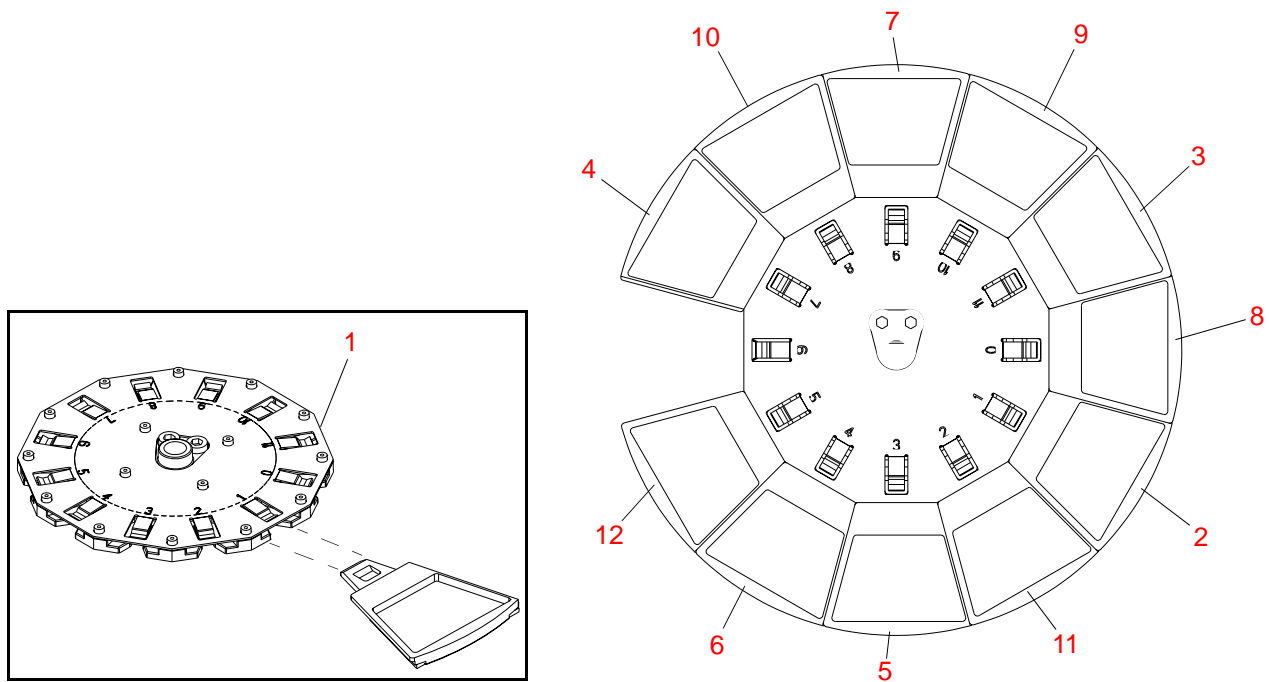


Figure 3-15: Filter Wheel Assembly

Strobe Assembly

22.9676.0016 Rev H

Refer to [Figure 3-16](#).

No.	Item	Qty.	UM.	Description
1	10.9676.0043	1	EA	BULKHEAD, STROBE MOUNTING
2	10.9676.0019	2	EA	STROBE BLADE, DIMPLED
3	10.9676.0060	2	EA	MOUNTING COLLAR, STROBE BLADE
4	10.9676.8061	2	EA	STABLIZER, STROBE MOTOR
5	10.9676.0069	2	EA	MOUNTING PLATE, STROBE MOTOR
6	10.9678.0491	4	EA	BUMPER STOP, STROBE
7	44.9678.0455	2	EA	MOTOR, COLOR
8	53.2200.0006	2	EA	NUT, 6-32 KEPS SS
9	53.5536.0500	4	EA	SCREW, 6-32 X 1/2" PFSS-B
10	53.6525.0001	2	EA	SCREW, 6-32 X 5/16" PPZ
11	53.6528.0001	2	EA	WASHER, #6 FLAT ZINC
12	53.6587.0001	6	EA	SCREW, 4-40 X 1/8" PPZ
13	53.6610.0003	2	EA	SCREW, 6-32 X 7/16" PPZ
14	53.5559.0250	4	EA	SCREW, 6-32 X 1/4" SET CONE POINT
15	53.6682.0002	8	EA	SCREW, 4-40 X 1/4" PPZ SEMS
16	55.6568.0054	2	EA	SPRING, EXTSN 1/2" FL X 1/8" HOOK OPEN

Strobe Assembly (continued)

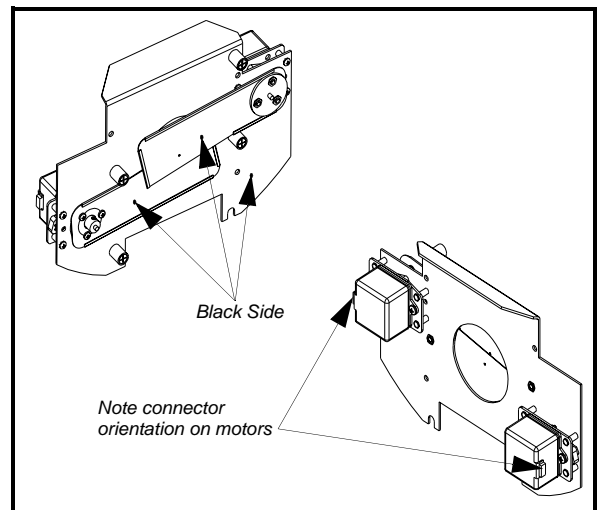
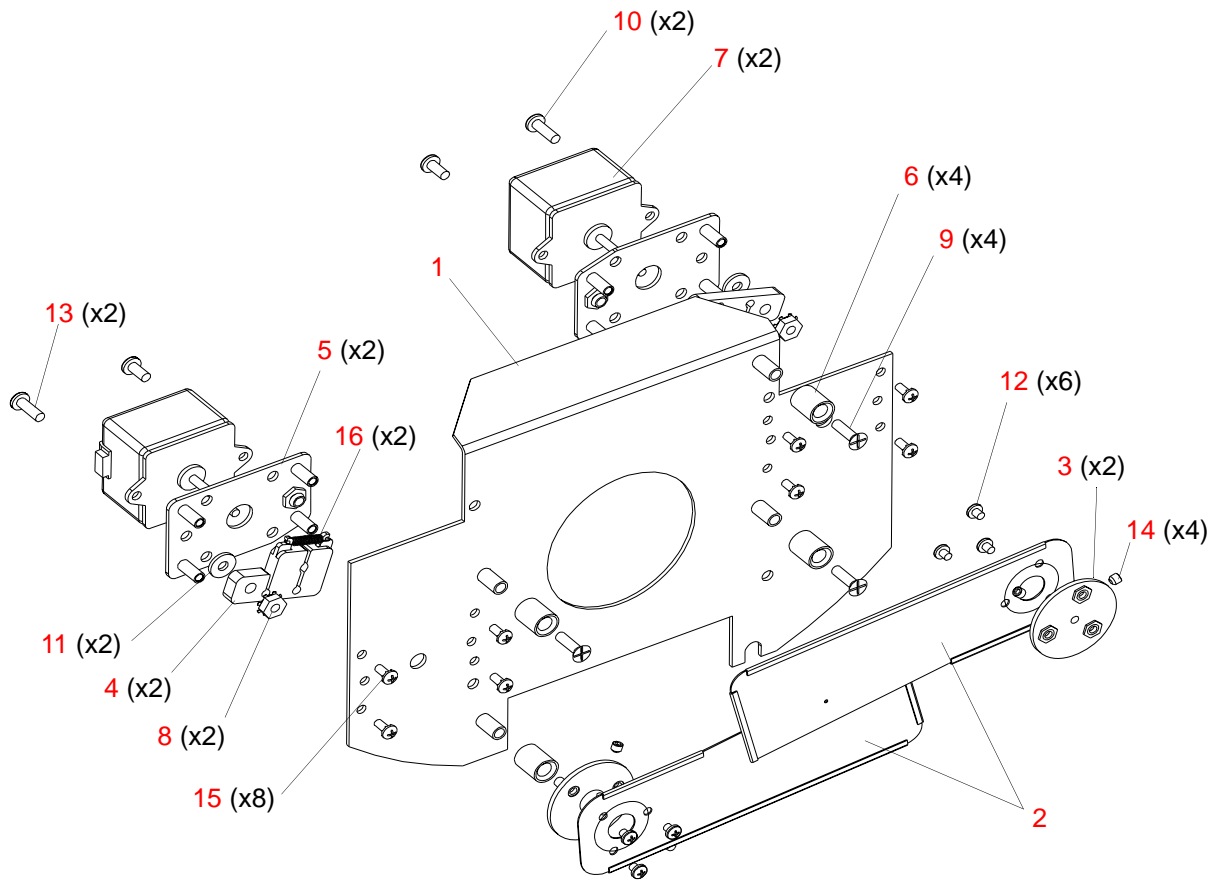


Figure 3-16: Strobe Assembly

UV / IR Window Assembly

22.9676.0140 Rev G

Refer to [Figure 3-17](#).

No.	Item	Qty.	UM.	Description
1	10.9676.0058	1	EA	UV / IR FRAME
2	10.9676.0141	1	EA	INSULATOR, THERMAL SWITCH
3	41.9678.0608	1	EA	UV / IR FILTER, 3.00" X 3.00"
4	53.5504.0187	2	EA	SCREW, 4-40 X 3/16" PPSS
5	55.6569.0001	2	EA	WASHER, #2 LOCK
6	74.1034.0001	1	EA	THERMAL SWITCH, 15 AMP 315 DEG F OPEN

Note: Only available in a complete assembly - except item 6.

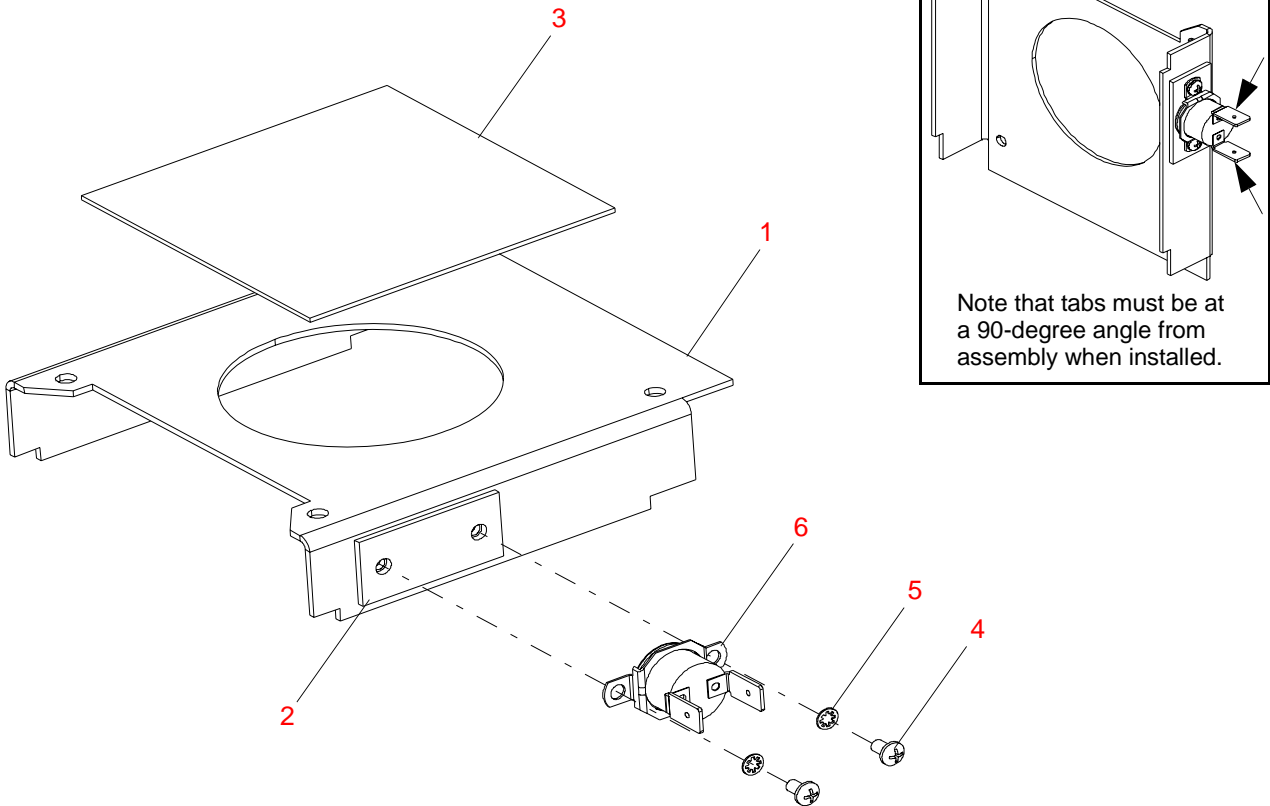


Figure 3-17: UV / IR Window Assembly

Yoke

Yoke Assembly

21.9676.0600 Rev G

Refer to [Figure 3-18](#).

1	22.9676.8605	1	EA	ASSY, YOKE STRUCTURE
2	22.9676.0609	1	EA	ASSY, FAN
3	22.9676.0610	1	EA	ASSY, TILT MOTOR
4	23.9650.3327	1	EA	ASSY, ELEC., RELAY
5	24.9661.3126	1	EA	PCB ASSY, SOLID STATE IGNITOR
-	25.9676.0030	2	EA	CABLE ASSY, IGNITOR TO RELAY (not shown)
-	43.0298	2	EA	TOROID CORE ZW-42206-TC (not shown)
6	53.6525.0001	8	EA	SCREW, 6-32 X 5/16" PPZ
7	53.6558.0001	3	EA	SCREW, 6-32 X 3/8" PPZ
8	55.2143.0001	4	EA	STANDOFF, 1/4" HEX 6-32 1.313"
9	55.2150.0002	1	EA	STANDOFF, 1/4" HEX 6-32 1.187" MF
10	55.2201.0001	4	EA	SCREW, 4-40 X 5/16" PFB
11	55.3301.0006	2	EA	WASHER, #6 FLAT SS
12	55.6538.0001	6	EA	WASHER, #6 LOCK INTERNAL TOOTH
13	55.6541.0002	2	EA	GROMMET, 1" ID 1-3/4" OD 1-3/8" GRV DIA RUBBER
14	55.6583.0001	2	EA	STANDOFF, 1/4" HEX 6-32 .500" LG ALUM

Yoke Assembly (continued)

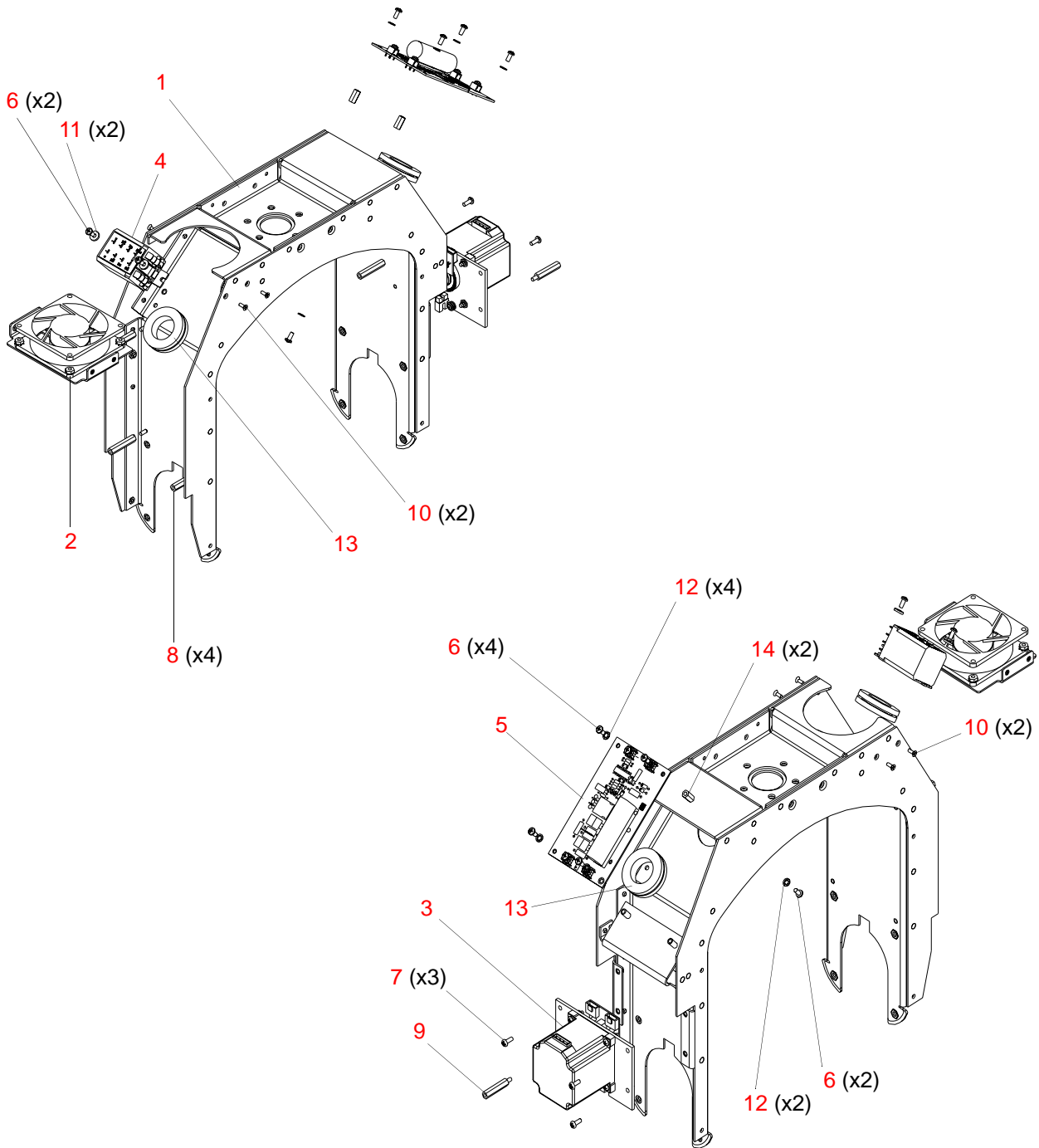


Figure 3-18: Yoke Assembly

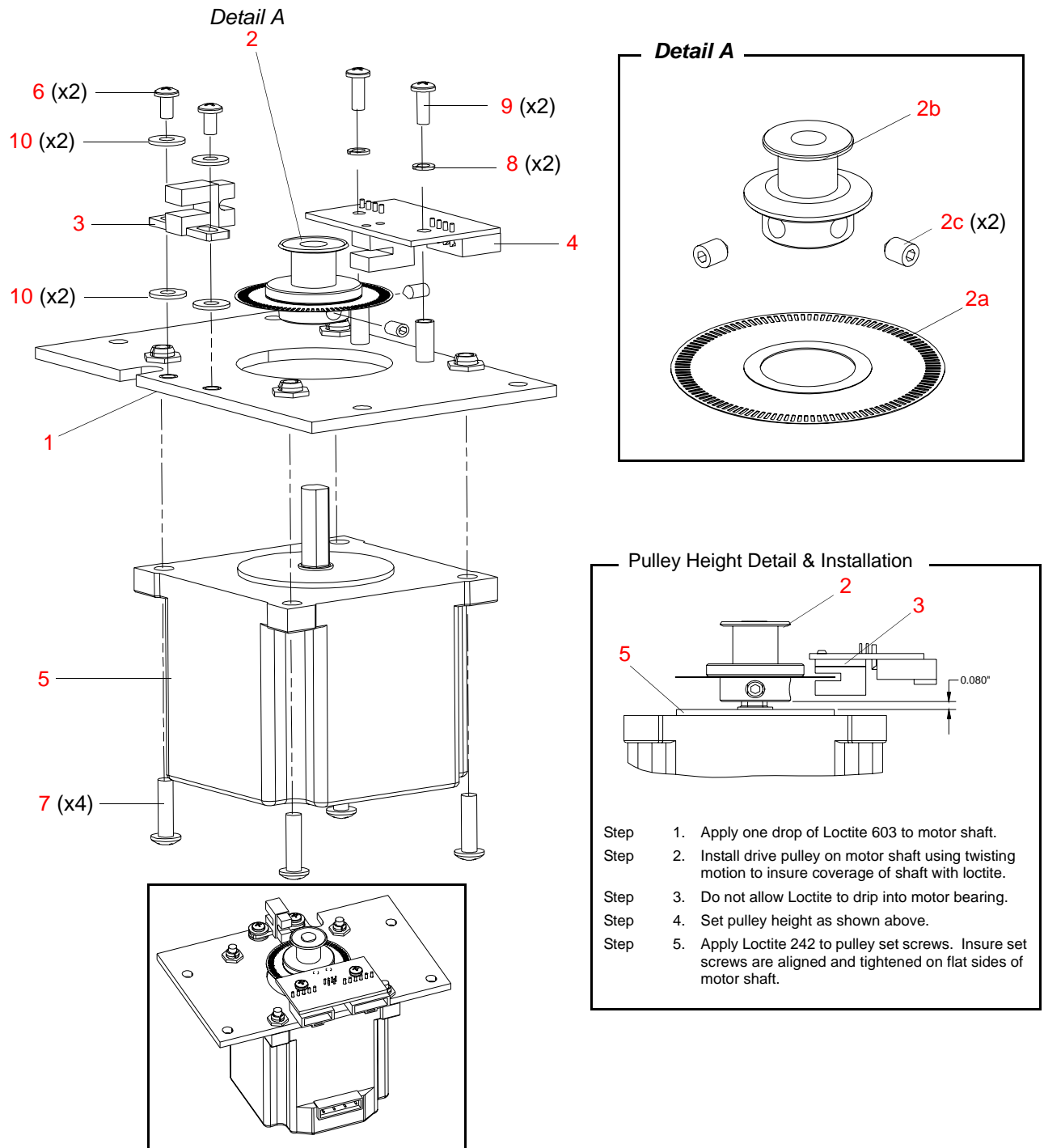
Tilt Motor Assembly

22.9676.0610 Rev C

Refer to [Figure 3-19](#).

No.	Item	Qty.	UM.	Description
1	10.9676.7298	1	EA	PLATE, TENSION ADJUST, PAN MOTOR
2	22.9661.0608	1	EA	ASSY, DRIVE PULLEY
2a	- 10.9661.8640	1	EA	CODEWHEEL, 90 COUNT
2b	- 10.9661.0649	1	EA	TIMING PULLEY, 2MM GT, 17 TOOTH
2c	- 53.5561.0250	2	EA	SCREW, 6-40 X 1/4" SET CONE POINT
3	23.9661.1253	1	EA	ELEC ASSY, PAN EOT SENSOR
-	- 52.6524.0006	1	EA	CONN, HOUSING 6-POS RECEPTACLE
-	- 52.8346.0001	4	EA	CONTACT, 24-30 AWG FEMALE CRIMP
-	- 86.7002.0003	1	EA	SWITCH, SLOTTED OPTICAL
4	24.9661.9629	1	EA	PCB ASSY, PAN/TILT ENCODER
5	44.9678.0680	1	EA	MOTOR, 3-PHASE SZ 23 HIGH TORQUE
6	53.2203.0001	2	EA	SCREW, 4-40 X 1/4" PPZ
7	53.5506.0625	4	EA	SCREW, 6-32 X 5/8 " PPSS
8	55.6512.0001	2	EA	WASHER, #4 SPLIT LOCK
9	53.6520.0001	2	EA	SCREW, 4-40 X 3/8" PPZ
10	55.6621.0001	4	EA	WASHER, #4 FLAT ZINC

Tilt Motor Assembly (continued)



Note: Vari-Lite recommends that this assembly 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 5), also order the pulley (Item 2). Contact Vari-Lite Customer Service for installation information.

Figure 3-19: Tilt Motor Assembly

Yoke Fan Assembly

22.9676.0609 Rev A

Refer to [Figure 3-20](#).

No.	Item	Qty.	UM.	Description
1	10-9676.0646	1	EA	FAN TRAY, YOKE ARM
2	40.7113.0001	1	EA	FAN, +24V 80 X 80 X 25 MM 32CFM
3	52.6396.2202	1	EA	RECPT, 2POS MTA100 W/ POL TAB RED CLSD END
4	53.2200.0006	4	EA	NUT, 6-32 KEPS SS

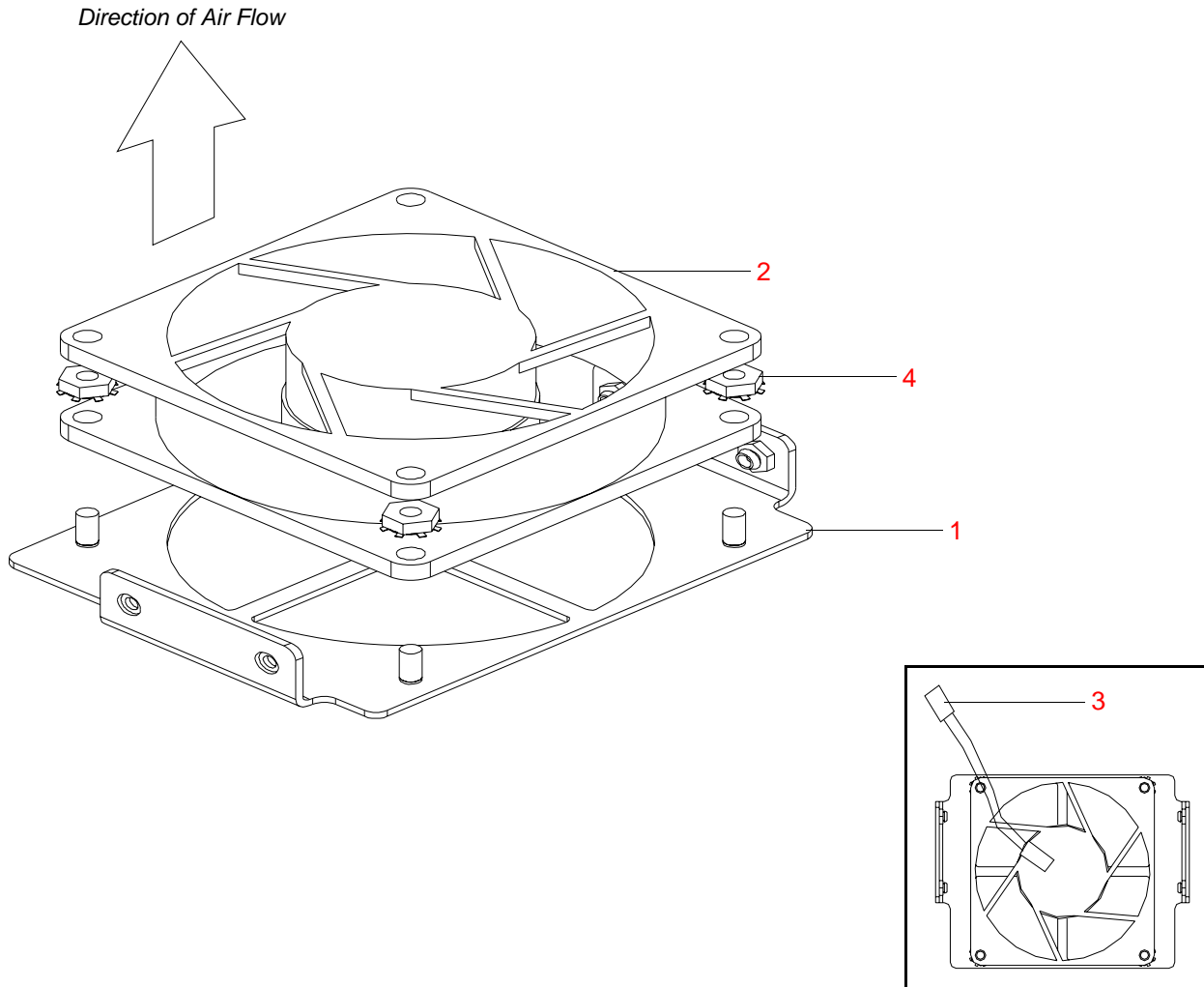


Figure 3-20: Yoke Fan Assembly

Notes

Enclosure

Upper Enclosure Assembly

21.9676.0800 Rev T

Refer to [Figure 3-21](#) and [Figure 3-22](#).

No.	Item	Qty.	UM.	Description
1	04.9640.0374	1	EA	LABEL, P.E. GROUND
2	04.9673.0040	1	EA	LABEL, 2000 SERIES COMPLIANCE
3	04.9661.1218.01	1	EA	LABEL, PATENT, VL2201 & VL2400 SERIES LUMINAIRES
4	10.9661.1258	1	EA	BRACKET, APS SIDE
5	10.9661.1358	1	EA	AIR SEAL, DUCT
6	06.6032.0009	1	EA	CABLE MARKER TIE, 19 X .7
7	10.9678.1874	1	EA	PLENUM, AIR DISTRIBUTION, 700W BALLAST
8	55.6658.0009	1	EA	STANDOFF, 1/4" HEX 6-32 X 3/4"
9	10.9678.0820	1	EA	LANYARD, PAN TUBE
10	10.9686.0839	2	EA	COVER, TOP
11	10.9686.0846	2	EA	HANDLE, CAST
12	10.9678.0869	1	EA	BRACKET, LVS
13	10.9678.0886	1	EA	SPACER, PAN BEARING 0.235" THK
14	10.9678.0892	1	EA	BUSHING, WIRE PROTECTION, PAN TUBE
15	12.9686.1236	2	EA	MACHINED, COVER FRONT
16	12.9686.1238	2	EA	MACHINED, COVER SIDE
17	12.9678.0842	1	EA	DUCT, UPPER ENCLOSURE AIR
18	55.6538.0001	1	EA	WASHER, INTERNAL TOOTH, # 6
19	21.9678.1254	1	EA	ASSY, COVER - VENTILATION
20	21.9678.0767	1	EA	ASSY, STABLIZER
20a	- 10.9678.0757	1	EA	STABILIZER, 1.377DIA
20b	- 10.9678.0762	1	EA	BRACKET, STABLIZER
20c	- 53.6610.0003	1	EA	SCREW, 6-32 X 7/16" PPZ
20d	- 55.6568.0075	1	EA	SPRING, EXTSN 0.375" OD 1.00" LG 0.041" WIRE DIA
21	21.9676.0805	1	EA	ASSY, CONNECTOR PANEL
22	21.9678.0807	1	EA	ASSY, PAN PULLEY
23	21.9678.0864	1	EA	ASSY, PAN MOTOR
24	21.9678.0880	1	EA	ASSY, PAN TUBE
25	22.9678.0851	1	EA	ASSY, UPPER ENCLOSURE

VARI*LITE® - VL2500™ WASH LUMINAIRE SERVICE MANUAL

No.	Item	Qty.	UM.	Description
26	69.9676.0700	1	EA	ASSY, BALLAST MODULE, 700W ARC, SHIELDED
27	23.9678.0686	1	EA	FAN ASSY, UPPER ENCLOSURE
28	23.9678.0687	1	EA	ELEC ASSY, PAN EOT SENSOR
29	25.9661.1514	1	EA	CABLE ASSY, CHASSIS GROUND (not shown)
30	25.9661.1520	1	EA	CABLE ASSY, CHASSIS TO YOKE GROUND (not shown)
31	25.9676.0818	1	EA	CABLE ASSY, PAN/TILT CONTROL (not shown)
32	25.9678.0811	1	EA	CABLE ASSY, EMI FILTER TO POWER SWITCH (not shown)
33	25.9678.0812	1	EA	CABLE ASSY, AC INPUT SPLITTER (not shown)
34	25.9678.0813	1	EA	CABLE ASSY, DATA I/O LINK (not shown)
35	25.9678.1825	1	EA	CABLE ASSY, DISPLAY (not shown)
36	25.9678.0816	1	EA	CABLE ASSY, BALLAST TO CONTROLLER (not shown)
37	25.9678.0829	1	EA	CABLE ASSY, LAMP SUPPLY TO RELAY (not shown)
38	25.9678.0821	1	EA	CABLE ASSY, DC OUTPUT (not shown)
39	52.8295.0002	1	EA	TERMINAL STRIP, 300V 12 AWG 20A 2 POS.
40	53.2001.0003	1	EA	NUT, 10-32 NYLON INSERT
41	53.2019.0004	4	EA	NUT, 3/8-16 X 7/32 THK HEX JAM GRDS ZINC PLT
42	53.2200.0006	4	EA	NUT, 6-32 KEPS SS
43	53.6505.0022	3	EA	BOLT, 3/8-16 X 3/4" LG, CARRIAGE GRDS ZINC PLT
44	53.6513.0044	3	EA	SCREW, M5 X 10 MM STL CUP PT
45	53.6515.0001	4	EA	SCREW, 10-32 X 3/4" SCB CAP
46	53.6522.0004	2	EA	SCREW, 6-32 X 1/4" SOC HD CAP BLK
47	53.6525.0188	2	EA	SCREW, 6-32 X 3/16" LG PPZ SEMS
48	53.6530.0023	2	EA	RIVET, 1/8" OD POP .376-.500 GRP DOME HD STL MND
49	53.6539.0001	4	EA	WASHER, 3/8" SPLIT LOCK
50	53.6545.0003	4	EA	SCREW, 8-32 X 3/8" PFZ
51	53.6545.0004	4	EA	SCREW, 8-32 X 3/8" PPZ
52	53.6556.0002	1	EA	SCREW, 4-40 X 3/4" LG PPB
53	53.6558.0009	13	EA	SCREW, 6-32 X 3/8" PPZ SEMS-EXT W/ SHR
54	53.6558.0010	11	EA	SCREW, 6-32 X 1/4" LG PPZ BLK SEMS-EXT W/ SHR
55	53.6558.0015	4	EA	SCREW, 6-32 X 3/8" PPB SEMS
56	53.6571.0003	1	EA	SCREW, 6-32 X 1.5" PPB
57	53.6591.0001	2	EA	SCREW, 6-32 X 1/4" PFZ
58	55.6677.0039	8	EA	WASHER, .438" OD .0219" ID .04 THK
59	53.6522.0001	1	EA	SCREW, 6-32 X 1/4" PPZ
60	53.6609.0001	4	EA	SCREW, 6-32 X 3/8" PFZ
61	53.6626.0001	1	EA	SCREW, 10-32 X 1/2" PPZ
62	53.6634.1000	1	EA	SCREW, 3/8-16 X 1.00" LG SOC HD CAP ALLY STL
63	53.6653.0502	4	EA	SCREW, 1/4-20 X 1/2" LG SOC HD CAP ZINC

No.	Item	Qty.	UM.	Description
64	54.1206.0014	2	EA	RING, RETAINING, 1.375" SHAFT 1.291" DIA GRV X .056" WD
65	54.1255.0001	1	EA	BEARING ASSY, BLACK FLUSH MOUNT HOUSING
66	54.2055.0001	1	EA	BELT, TIMING S2M 210 GRV 9 MM WIDE URTH/KVLR
67	55.2150.0003	2	EA	STANDOFF, 1/4" HEX 6-32 X 1.125" LG FF STL
68	55.2178.0001	2	EA	CABLE ANCHOR, MOUNT, #8 SCREW MOUNTING
69	55.2179.0001	3	EA	CABLE ANCHOR, MOUNT, #6 SCREW MOUNTING
70	55.6580.0002	2	EA	CABLE TIE, .18" W X 8.00" LG
71	55.2261.0001	1	EA	SLEEVE, NYL, INSUL, #6 SCREW 1.0" LG .015 WALL
72	55.2267.0001	2	EA	RUBBER STRIP, SPONGE CLSD CELL 3/8" W 3/16" TALL
73	55.2178.0001	2	EA	CABLE ANCHOR MOUNT, # 8 SCREW MOUNTING
74	55.6532.0004	2	EA	BRACKET, 6-32 THREADED HOLES (#4334)
75	55.6543.0001	0.146	FT	GROMMET STRIP, SERRATED
76	55.6543.0002	1.08	FT	GROMMET STRIP, SERRATED, 1/8" OPENING
77	55.6549.0001	4	EA	WASHER, 1/4" SPLIT LOCK
78	55.6568.0074	2	EA	SPRING, CPRSN .420" OD .75" LG .055 DIA WIRE
79	55.6677.0044	1	EA	WASHER, .877" OD .170" ID .093" THK FLAT NYL
80	55.6575.0001	4	EA	SCREW, 10-32 X 3/4" PPB
81	55.6577.0005	2	EA	STANDOFF, 1/2" HEX 6-32 1.625" LG NYLON
82	55.6775.0009	1	EA	BUSHING, SNAP .750" ID 1" MT HL NYLON BLK
83	67.4018.0001	1	EA	FERRITE, 26 X 28.5 X 13MM CYL
84	67.4021.0002	1	EA	FILTER, EMI CCI
85	68.9678.0827	1	EA	CHOKER, COMMON MODE
86	69.3177.0151	1	EA	POWER SUPPLY, 150W +24V/6.3A W/ MNT PLT
87	55.6799.0001	AR	EA	SHIM, 1.375" ID 1.875" OD .010 THK
88	55.6799.0002	AR	EA	SHIM, 1.375" ID 1.875" OD .005 THK

AR = As Required.

Upper Enclosure Assembly (continued)

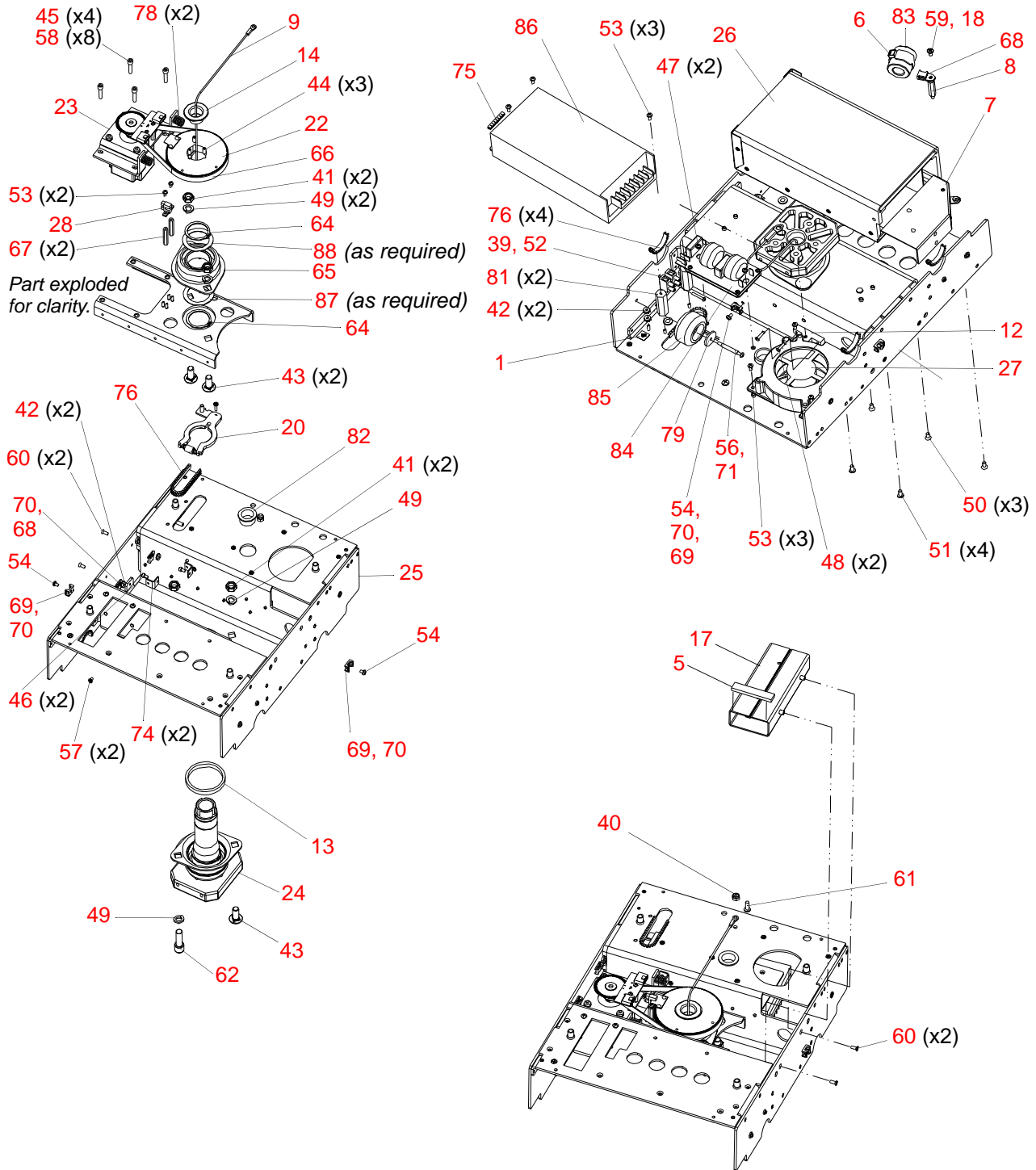


Figure 3-21: Upper Enclosure Assembly

Upper Enclosure Assembly (continued)

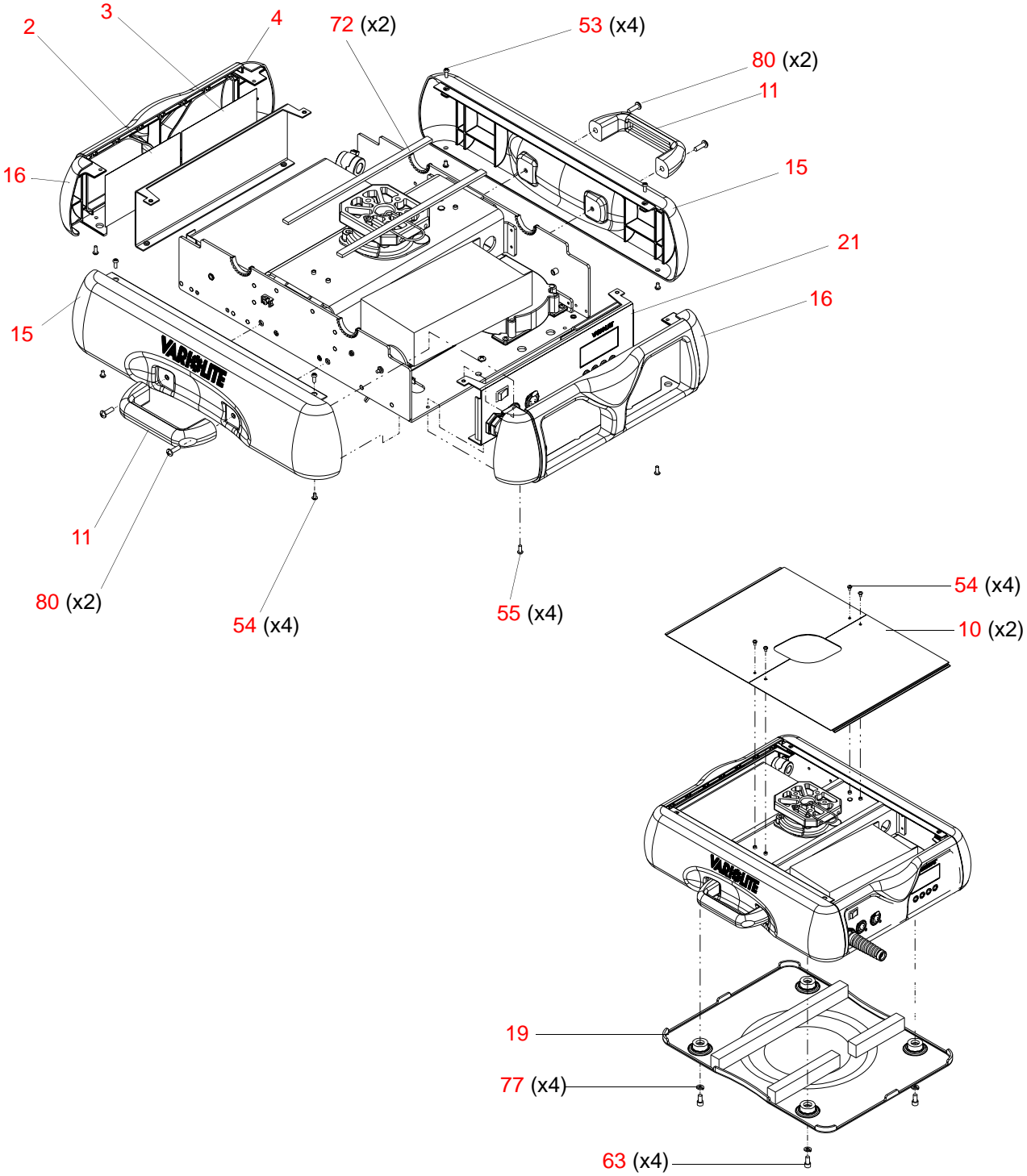


Figure 3-22: Upper Enclosure Assembly

Connector Panel Assembly

21.9676.0805 Rev B

Refer to [Figure 3-23](#).

No.	Item	Qty.	UM.	Description
1	10.9678.0852.01	1	EA	LAYOUT, ENCLOSURE OVERLAY
2	10.9678.0859	1	EA	BRACKET, INPUT
3	10.9678.0872	1	EA	STIFFNER, DISPLAY BOARD
4	10.9686.0820	1	EA	FILLER, PANEL, DMX CONNECTOR
5	24.9663.3895	1	EA	PCB ASSY, DMX INPUT
6	24.9678.3825	1	EA	PCB ASSY, DISPLAY
7	25.9678.0810	1	EA	CABLE ASSY, AC INPUT PIGTAIL
8	51-0541	4	EA	SCREW, 4-X 3/8" H/L BLK ZINC PLT
9	53.6558.0009	2	EA	SCREW, 6-32 X 3/8" PPZ SEMS EXT ZINC PLT
10	55.2284.0001	1	EA	CARD GUIDE, SNAP-IN 3" LONG NYLON NATURAL
11	74.2000.0002	1	EA	SWITCH, ROCKER, HIGH CURRENT, BLACK

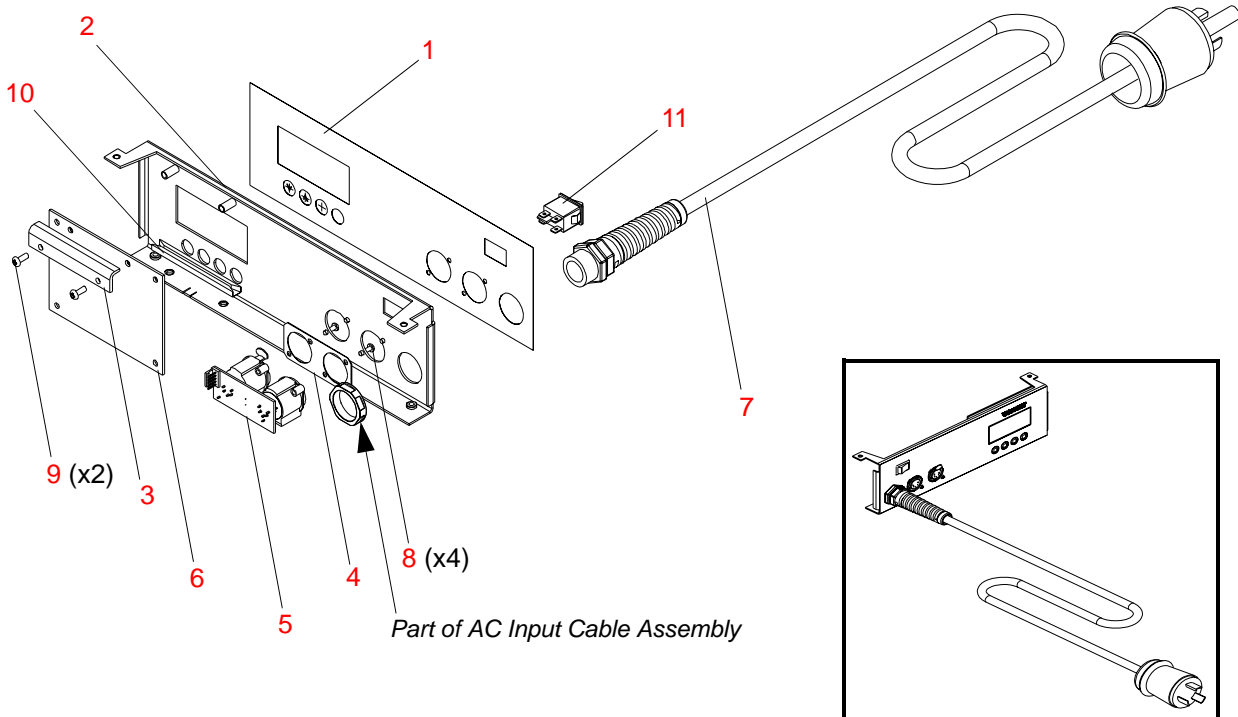


Figure 3-23: Connector Panel Assembly

DMX Input PCB Assembly

24.9663.3895 Rev 0

Refer to [Figure 3-24](#)

No.	Item	Qty.	UM.	Description	Ref.
1	17.9663.3895	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, RECEPT XLR 5PIN FEMALE PC MT VERTICAL	J1
4	52.6626.0006	1	EA	CONN, RECEPT XLR 5PIN MALE PC MT VERTICAL	J2
5	62.3039.0102	1	EA	CAP, 1000P 250V 20% CDE X-Y	C1

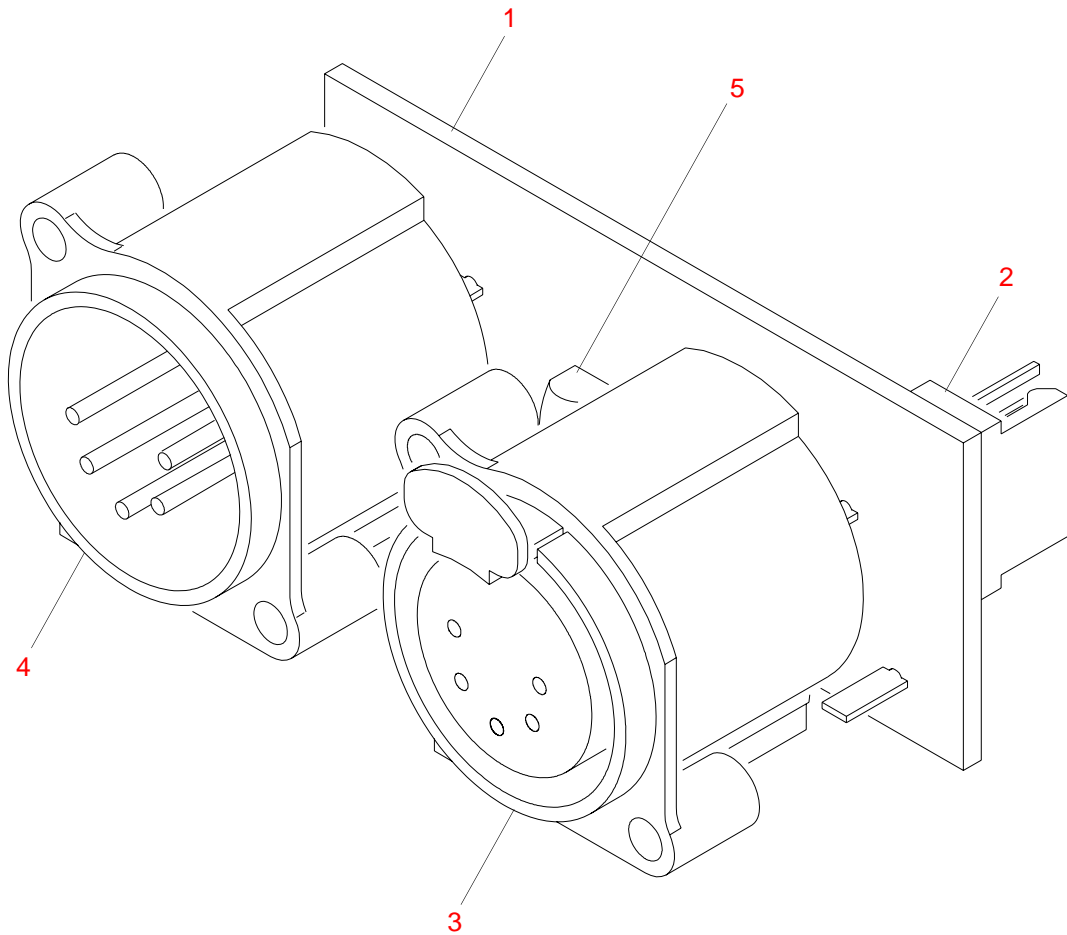


Figure 3-24: DMX Input PCB Assembly

AC Input Pigtail Cable Assembly

25.9678.0810 Rev B

Refer to [Figure 3-25](#)

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 UL 600V 150DEG C
6	55.2268.0500	0.13	FT	HEATSHRINK, 1/2" CLEAR KYNAR UL 600V 150DEG C
7	73.9636.0153	4.00	FT	CORDAGE, 1.5/3 750V 60C EURO BLK HD-22 11MM OD

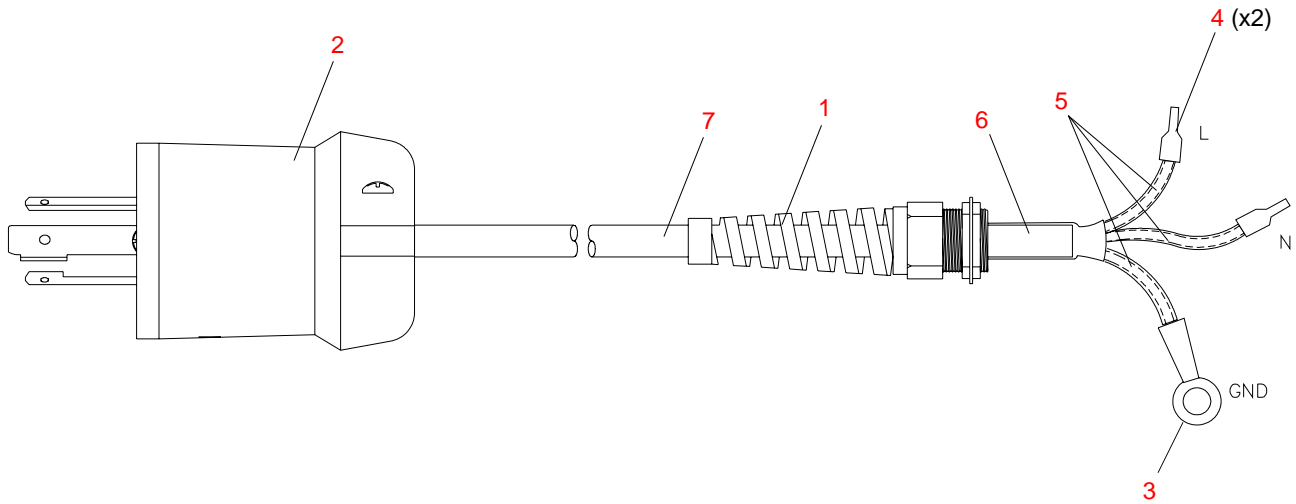


Figure 3-25: AC Input Pigtail Cable Assembly

Pan Tube Assembly

21.9678.0880 Rev C

Refer to [Figure 3-26](#).

No.	Item	Qty.	UM.	Description
1	10.9678.0809	1	EA	PAN TOGGLE STOP
2	10.9678.0847	1	EA	WASHER, SILICONE FOAM
3	10.9678.0848	2	EA	WASHER, PAN TEFLON
4	12.9678.0891	1	EA	PAN TUBE, MACHINED
5	54.1206.0021	1	EA	RING, RETAINING 1.562" SHAFT 1.468" GRV DIA
6	54.1255.0002	1	EA	BEARING ASSY, FLUSH MOUNT HOUSING LARGE

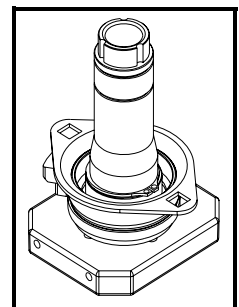
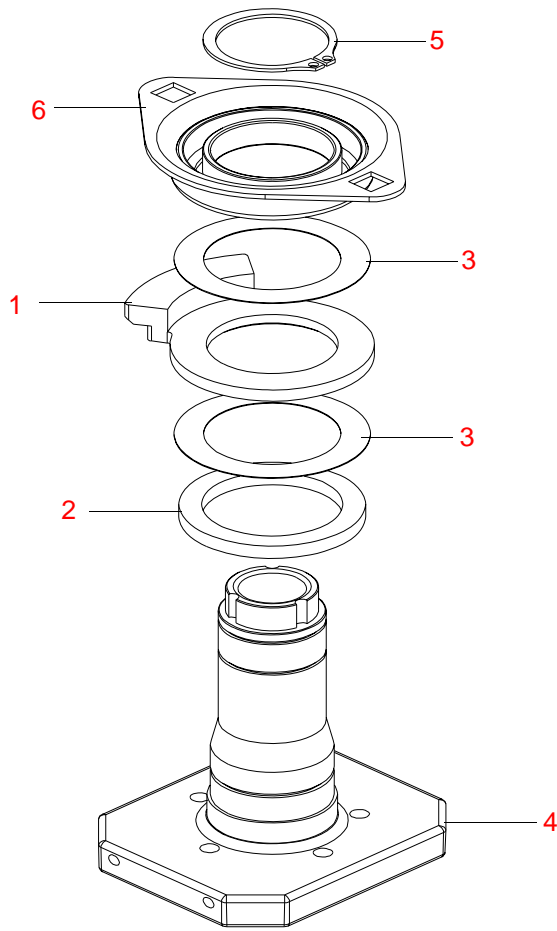


Figure 3-26: Pan Tube Assembly

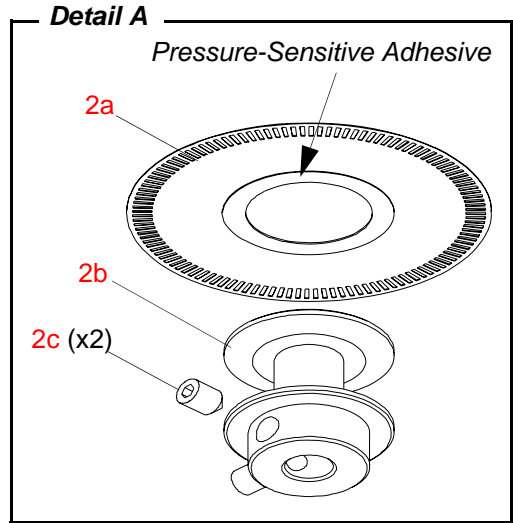
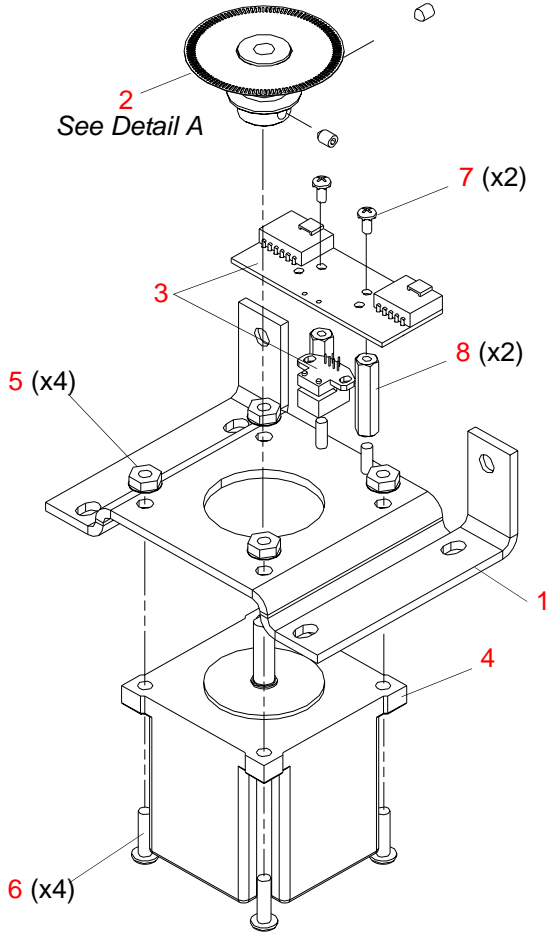
Pan Motor Assembly

21.9678.0864 Rev E

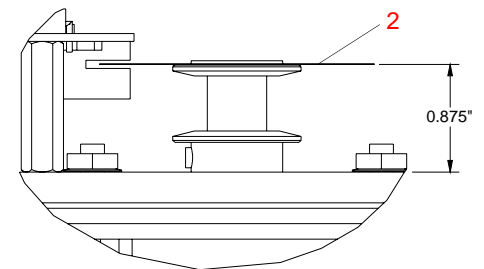
Refer to [Figure 3-27](#)

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
	- 10.9686.8720	1	EA	CODEWHEEL, 120 COUNT LARGE ID
	- 10.9678.0749	1	EA	TIMING PULLEY, 2MM GT 17 TOOTH
	- 53.5560.0250	2	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)

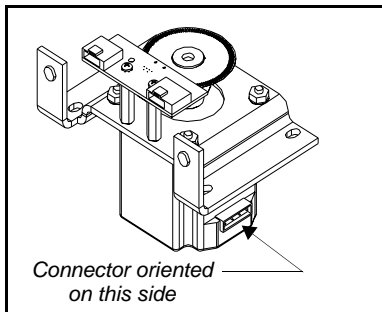
Pan Motor Assembly (continued)



Drive Pulley Detail & Installation



- Step 1. Apply one drop of Loctite 603 to motor shaft.
- Step 2. Install drive pulley on motor shaft using twisting motion to insure coverage of shaft with loctite.
- Step 3. Do not allow Loctite to drip into motor bearing.
- Step 4. Set pulley height as shown above.
- Step 5. Apply Loctite 242 to pulley set screws. Insure set screws are aligned and tightened on flat sides of motor shaft.



Note: Vari-Lite recommends that this assembly 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 3-27: Pan Motor Assembly

Upper Enclosure Fan Assembly

23.9678.0686 Rev 0

Refer to [Figure 3-28](#).

No.	Item	Qty.	UM.	Description
1	40.7125.0001	1	EA	FAN, 24V FAL6F24LH
2	52.8231.0007	2	EA	TERM, SPADE #6 26-24 AWG INS YELLOW

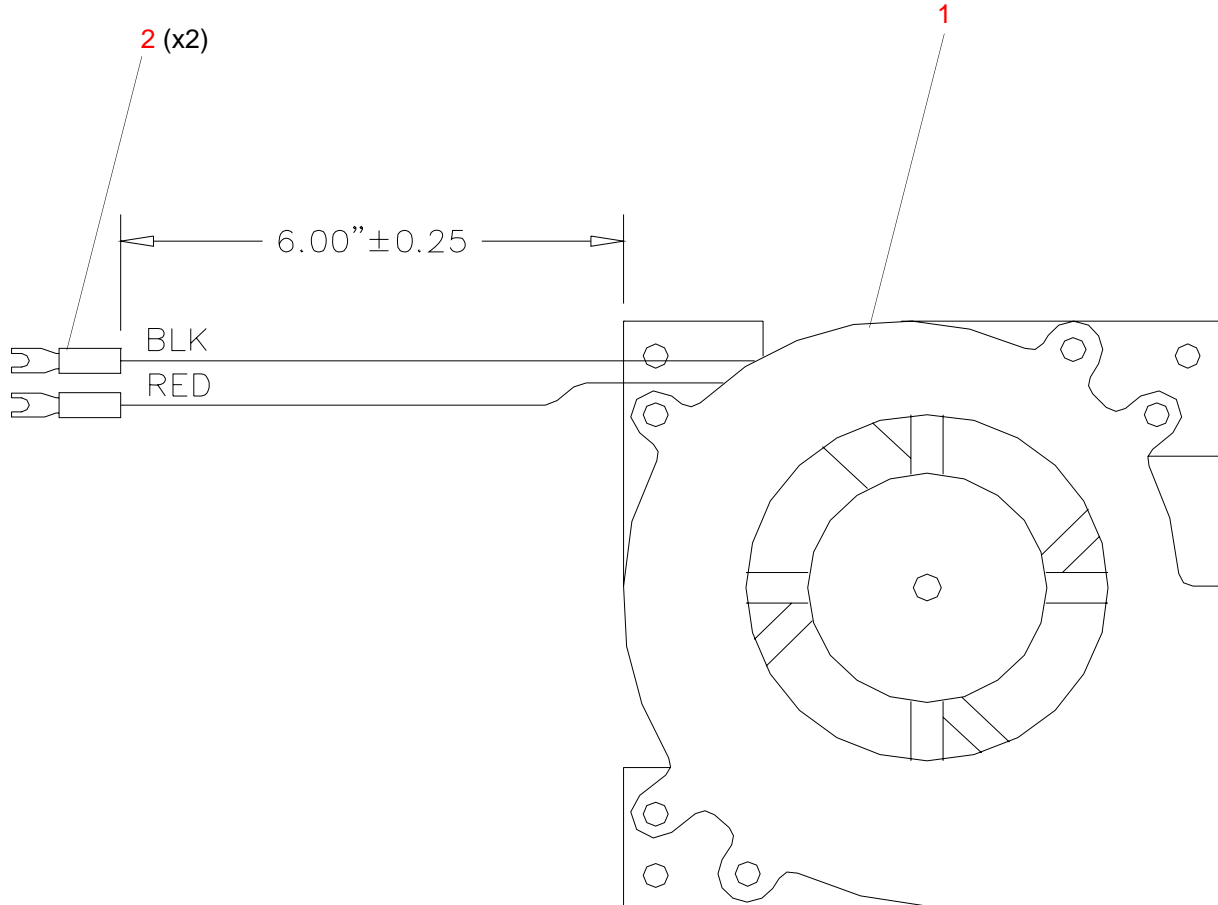


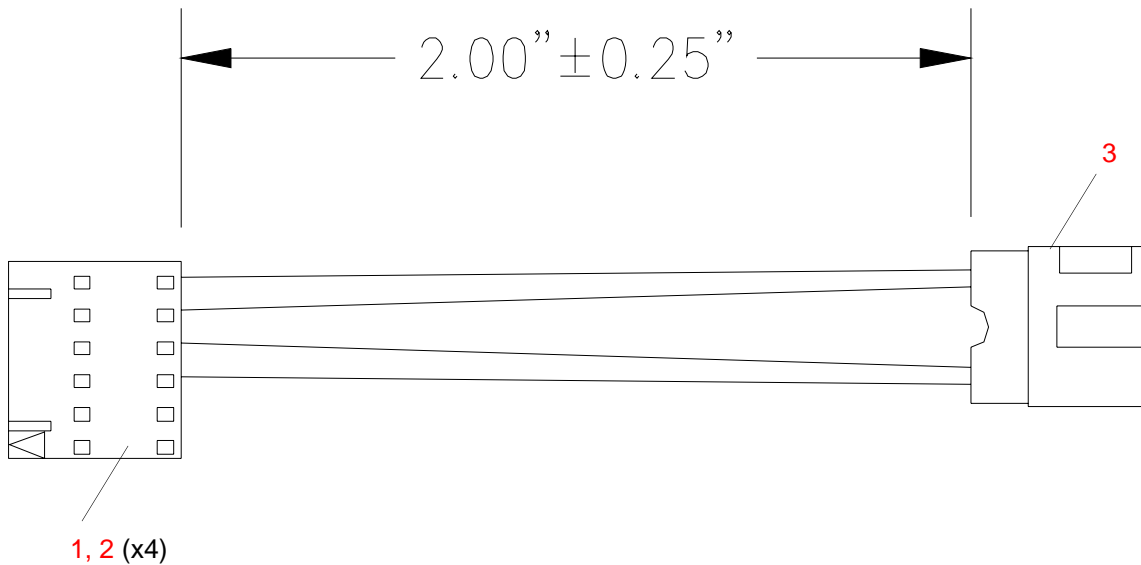
Figure 3-28: Upper Enclosure Fan Assembly

Pan EOT Sensor Electrical Assembly

23.9678.0687 Rev A

Refer to [Figure 3-29](#).

No.	Item	Qty.	UM.	Description
1	52.6524.0006	1	EA	CONN, HOUSING 6 POS. RECEPTACLE
2	52.8346.0001	4	EA	CONTACT, 24-30 AWG 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	IREC CATHODE
PIN 4	RED	IREC ANODE
PIN 5	GREEN	DETECTOR EMITTER
PIN 6	WHITE	DETECTOR COLLECTOR

Figure 3-29: Pan EOT Sensor Electrical Assembly

Notes

Cables



Note: Cables are only available as complete assemblies. The information contained in this section is for reference only.

Ground Strap Cable Assembly

25.8007.2212 Rev 0

Refer to [Figure 3-48](#).

No.	Item	Qty.	UM.	Description
1	52.8329.0001	2	EA	TERM, RING # 6 22-16 AWG NON-INS
2	73.7130.0002	0.33	FT	WIRE, 7/64" TUBULAR BRAID SILVER-PLATED

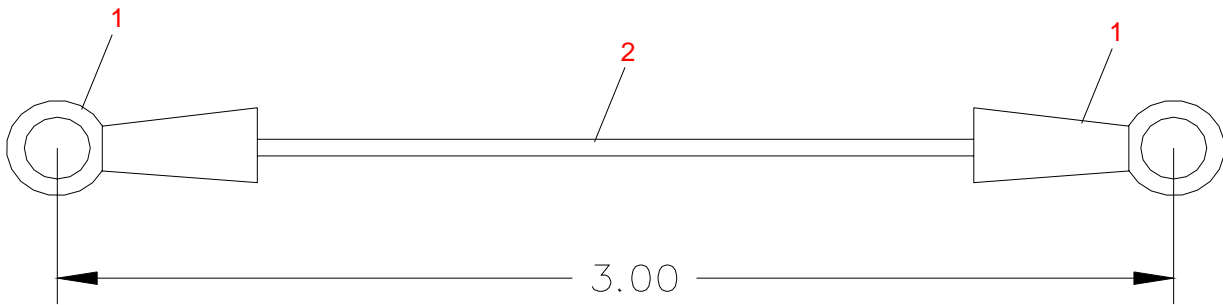


Figure 3-48: Ground Strap Cable Assembly

LVS Chassis Ground Cable Assembly

25.9661.1514 Rev A

Refer to [Figure 3-49](#).

No.	Item	Qty.	UM.	Description
1	52.8231.0005	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

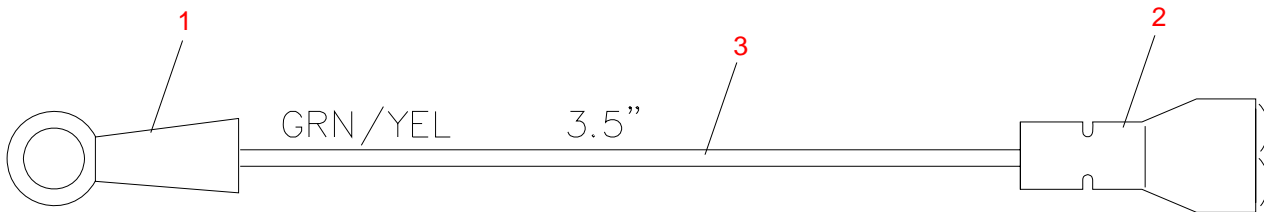


Figure 3-49: LVS Chassis Ground Cable Assembly

Chassis To Yoke Ground Cable Assembly

25.9661.1520 Rev C

Refer to [Figure 3-50](#).

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

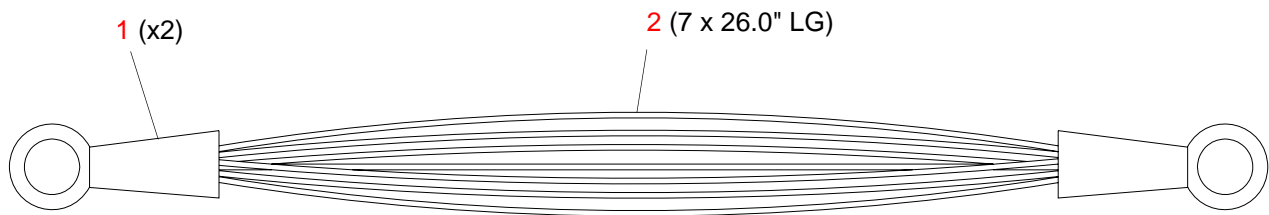


Figure 3-50: Chassis To Yoke Ground Cable Assembly

Ignitor To Relay Cable Assembly

25.9676.0030 Rev 0

Refer to [Figure 3-51](#).

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	1.17	FT	WIRE, 14AWG 15KV 150C SILICONE 41/30 STRANDING

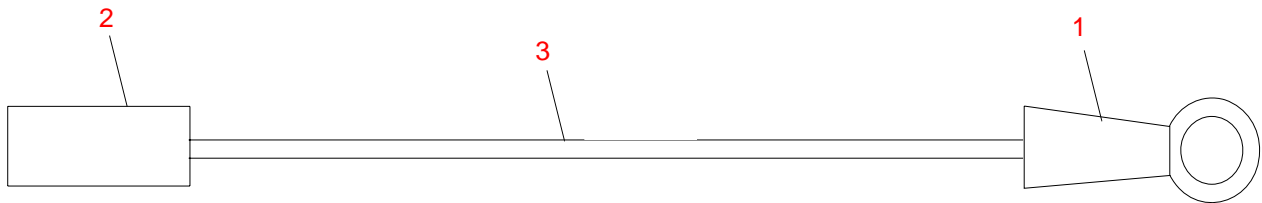


Figure 3-51: Ignitor To Relay Cable Assembly

Tilt Plate Ground Cable Assembly

25.9667.0413 Rev A

Refer to [Figure 3-52](#).

No.	Item	Qty.	UM.	Description
1	52.8311.0003	1	EA	TERM, RING #6 BLUE 14-16 AWG NON-INS.
2	73.7130.0002	0.21	FT	WIRE, 7/64" TUBULAR BRAID SILVER PLATED

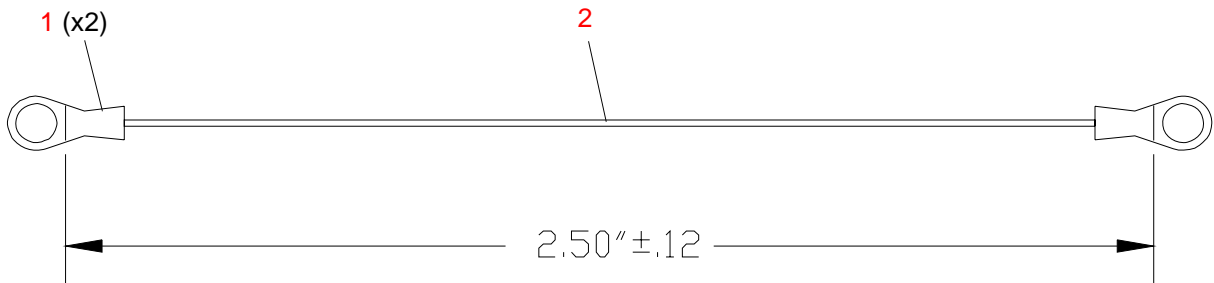


Figure 3-52: Tilt Plate Ground Cable Assembly

Color/Gobo T-Stat Cable Assembly

25.9676.0125 Rev B

Refer to [Figure 3-53](#).

No.	Item	Qty.	UM.	Description
1	52.6523.0002	1	EA	CONN, HOUSING 2POS. PLUG SHROUD
2	52.8347.0001	2	EA	CONTACT, 24-30 AWG MALE CRIMP
3	55.2268.0125	1.00	IN	HEATSHRINK, 1/8" CLEAR KYNAR
4	63.2047.1105	1	EA	THERMOSTAT, 105 DEG C, PCB MOUNT
5	73.3524.1008	0.50	FT	WIRE, 24 AWG 300V 105 DEG C PVC GRAY

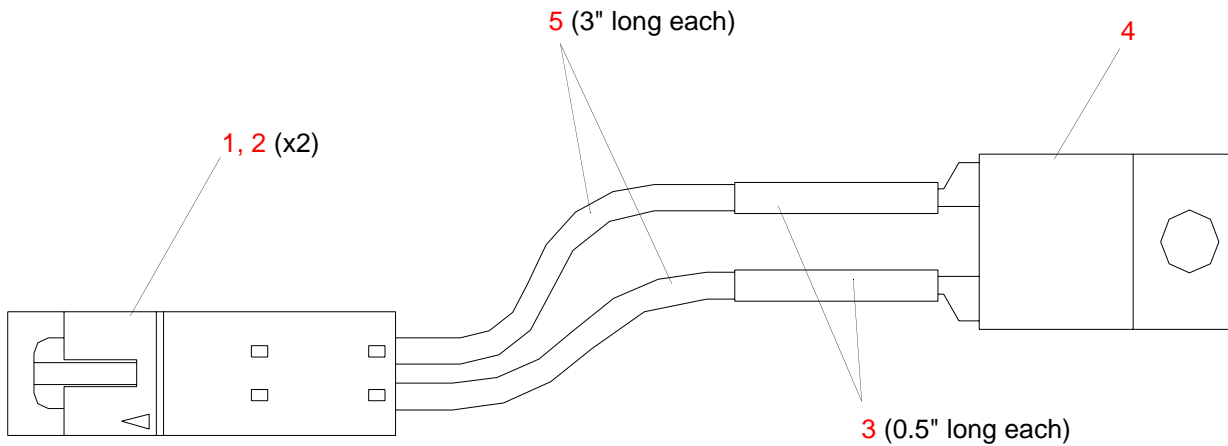


Figure 3-53: Color/Gobo T-Stat Cable Assembly

Color/Fixed Bulkheads Cable Assembly

25.9676.1715 Rev A

Refer to [Figure 3-54](#).

No.	Item	Qty.	UM.	Description
1	04.9676.1715.00	1	EA	LABEL SET, VL2500 COLOR HARNESS
2	52.6610.0040	1	EA	HOUSING, 40 POS 26-22 AWG PRELOADED MT RECPT DBL ROW
3	52.6224.1040	1	EA	COVER, FRONT 40 POS MT LATCHING
4	52.6224.2040	1	EA	COVER, BACK 40 POS MT
5	52.6396.2603	1	EA	RECEPT, 3 POS MTA100 W/POL TAB BLUE CLOSED END
6	52.6424.0003	1	EA	COVER, 3 POS CLOSED END STRAIN RELIEF MTA100
7	52.6467.0001	2	EA	CONN, FEMALE 6 POS 30-24 AWG CRIMP PHR
8	52.6467.0024	10	EA	CONTACT, SOCKET 30-24 AWG CRIMP (REEL) PH (JST)
9	52.6661.0006	4	EA	CONN, RECEPT 6CIR WIRE TO WIRE 1.25 MM PITCH
10	52.8387.0001	16	EA	CONTACT, 26-28 AWG FEMALE, CRIMP 1.25 MM PITCH (REEL)
11	55.2186.0001	6	EA	CABLE TIE, 0.10" X 4" LG SMALL
12	55.6699.0011	0.67	FT	SLEEVING, 3/4" NOM. DIA. WOVEN POLY, ROUNDIT 2000
13	55.6706.0001	2	EA	GROMMET, 9/32" ID, 9/16" OD, 1/4TH SILICONE
14	73.2326.0123	7.88	FT	WIRE, 26 AWG 4 COND 300V 200 DEG C TEF <BLK-BRN-RED-ORN> UL1180
15	73.2326.3001	1.25	FT	WIRE, 26 AWG 3 COND 300V 200 DEG C TEF <BLK-RED-WHT/BLK> UL1180
16	73.2328.6000	1.50	FT	WIRE, 28 AWG 6 COND 300V 200 DEG C TEF <BLK-WHT/BLU-WHT/YEL-WHT/BLK-WHT/PUR-RED> UL1180
17	52.8351.0004	40	EA	CONTACT, 26-22 AWG RECPT MTE (REEL)

Color/Fixed Bulkheads Cable Assembly (continued)

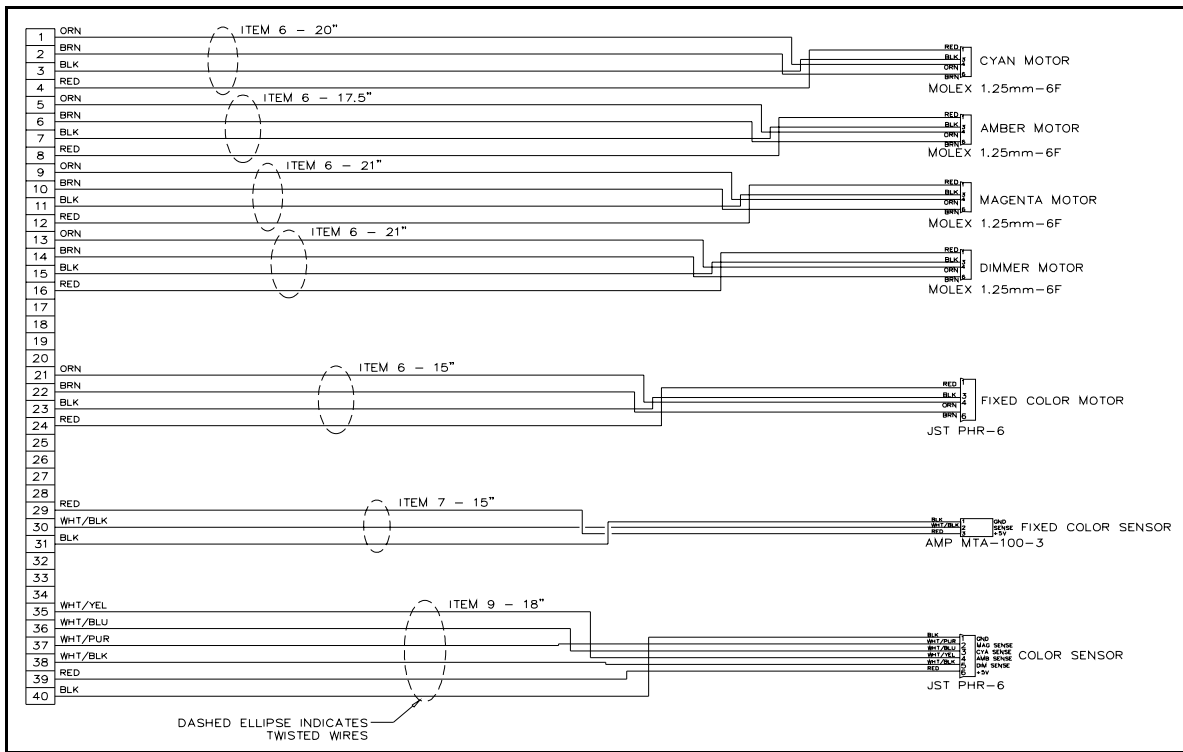
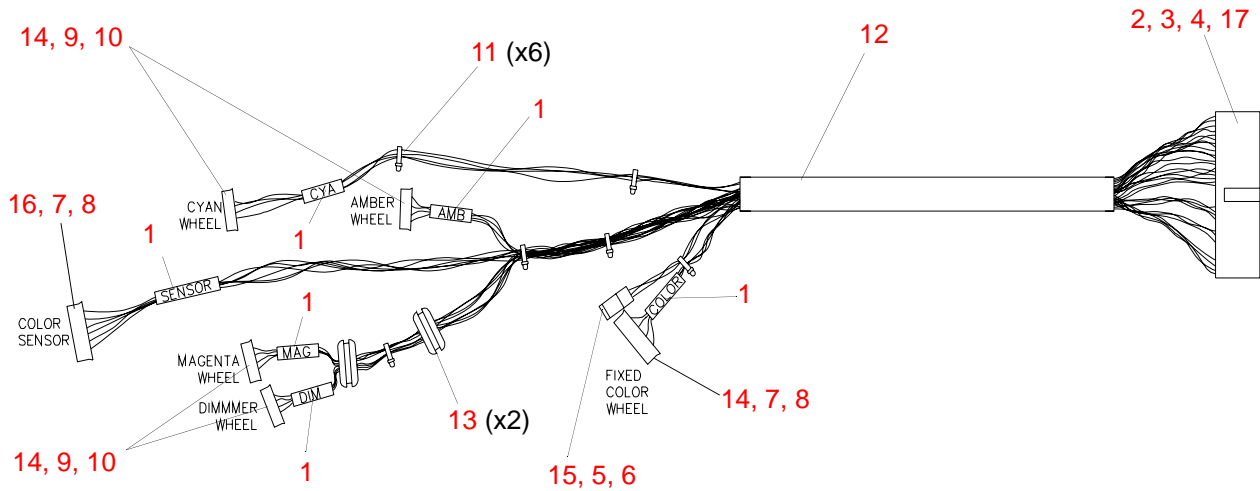


Figure 3-54: Color/Fixed Bulkheads Cable Assembly

Optics/Strobe Bulkheads Cable Assembly

25.9676.1716 Rev B

Replace as a complete assembly.

Refer to [Figure 3-55](#).

No.	Item	Qty.	UM.	Description
1	04.9676.1716.00	1	EA	LABEL SET, VL2500 COLOR HARNESS
2	52.6610.0034	1	EA	HOUSING, 34 POS 26-22 AWG PRELOADED MT RECPT DBL ROW
3	52.6224.1034	1	EA	COVER, FRONT 34 POS MT LATCHING
4	52.6224.2034	1	EA	COVER, BACK 34 POS MT
5	52.6524.0004	2	EA	CONN, HOUSING 4 POS RECEPT
6	52.6524.0005	1	EA	CONN, HOUSING 5 POS RECEPT
7	52.6661.0006	1	EA	CONN, RECEPT 6CIR WIRE TO WIRE 1.25 MM PITCH
8	52.8346.0001	12	EA	CONTACT, 24-30 AWG FEMALE CRIMP
9	52.8387.0001	4	EA	CONTACT, 26-28 AWG FEMALE, CRIMP 1.25 MM PITCH (REEL)
-	55.2186.0001	4	EA	CABLE TIE, 0.10" X 4" LG SMALL (not shown)
10	55.2198.0001	0.13	FT	HEATSHRINK, 1/8" BLACK
11	55.6699.0010	0.92	FT	SLEEVING, 5/16" NOM. DIA. WOVEN POLY, ROUNDIT 2000
12	73.2326.0123	5.17	FT	WIRE, 26 AWG 4 COND 300V 200 DEG C TEF <BLK-BRN-RED-ORN> UL1180
13	52.8351.0004	34	EA	CONTACT, 26-22 AWG RECPT MTE (REEL)

Optics/Strobe Bulkheads Cable Assy (continued)

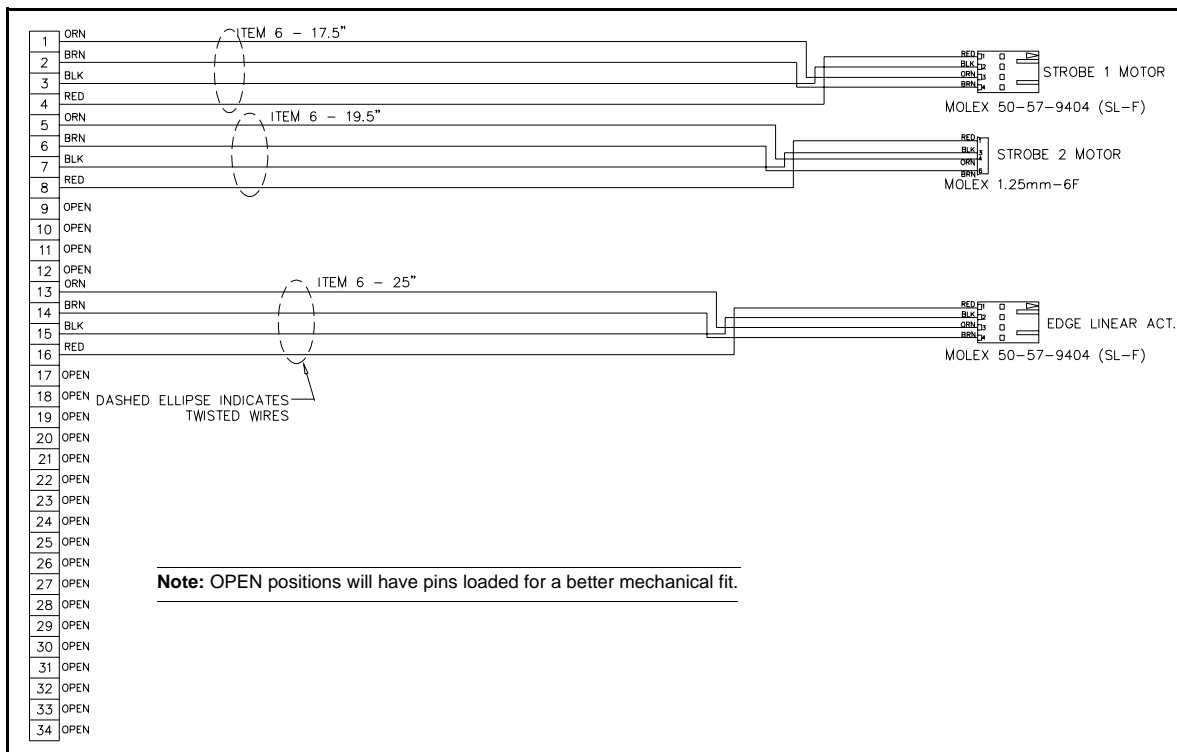
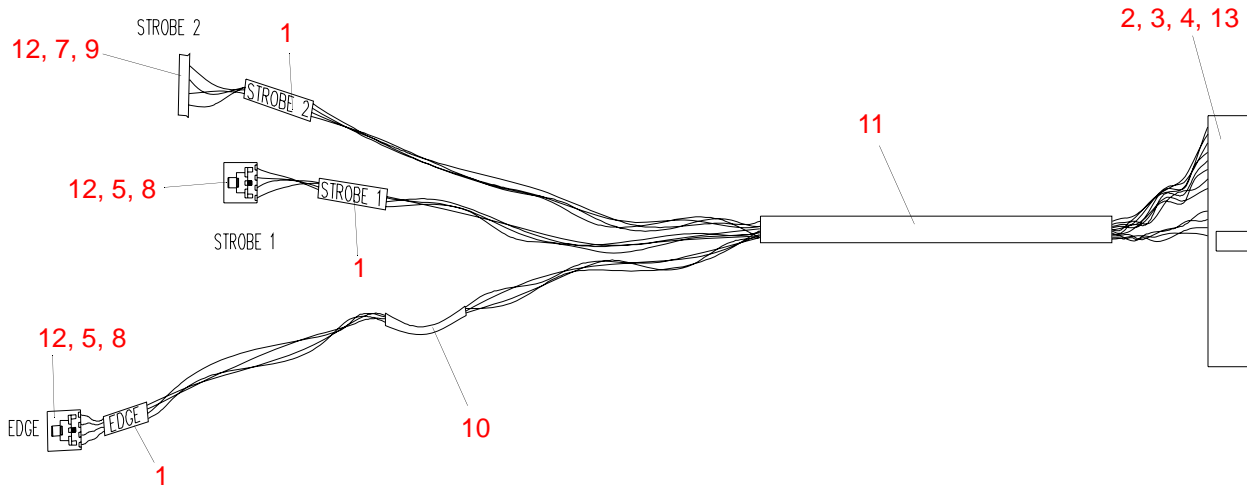


Figure 3-55: Optics/Strobe Bulkheads Cable Assembly

Strobe 1 Cable Assembly

25.9676.0717 Rev B

Refer to [Figure 3-56](#).

No.	Item	Qty.	UM.	Description
1	04.9676.0716.01	1	EA	LABEL, STROBE 1
2	52.6523.0004	1	EA	CONN, HOUSING 4 POS PLUG SHROUDED WIRE TO WIRE
3	52.6661.0006	1	EA	CONN, RECEPT 6CIR WIRE TO WIRE 1.25 MM PITCH
4	52.8347.0001	4	EA	CONTACT, 24-30 AWG MALE CRIMP
5	52.8387.0001	4	EA	CONTACT, 26-28 AWG FEMALE, CRIMP 1.25 MM PITCH (REEL)
6	55.6706.0001	1	EA	GROMMET, 9/32" ID, 9/16" OD, 1/4TH SILICONE
7	73.2326.0123	0.92	FT	WIRE, 26 AWG 4 COND 300V 200 DEG C TEF <BLK-BRN-RED-ORN> UL1180

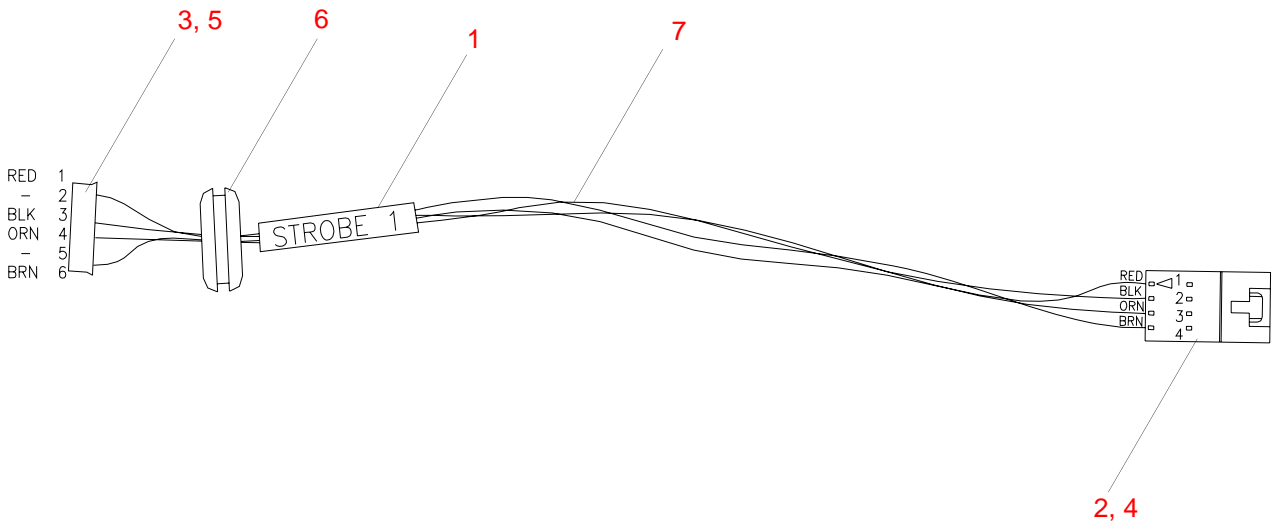


Figure 3-56: Strobe 1 Cable Assembly

OT Switch to Reflector Assy. Cable Assembly

25.9676.0719 Rev A

Refer to [Figure 3-58](#).

No.	Item	Qty.	UM.	Description
1	52.8271.0010	1	EA	RECEPT, FASTON 24-22 AWG NON-INSUL 0.016" TAB 110SERIES
2	52.8371.0001	1	EA	RECEPT, FASTON 24-20 AWG UNINSUL TIN PLT BRS .250 X 0.32
3	73.2624.0008	0.67	FT	WIRE, 24 AWG 600V 200 DEG C TEFLON GRAY TYPE E

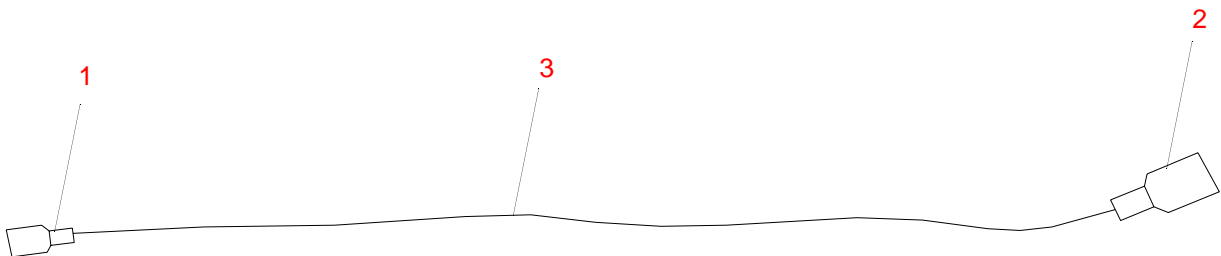


Figure 3-58: OT Switch to Reflector Assy. Cable Assembly

Pan/Tilt Control Cable Assembly

25.9676.0818 Rev B

Refer to [Figure 3-59](#).

No.	Item	Qty.	UM.	Description
1	52.6610.0008	1	EA	HOUSING, 20 POS 26-22 AWG DBL ROW UNLOADED
2	52.6224.1020	1	EA	COVER, FRONT 20 POS MT LATCHING
3	52.6224.2020	1	EA	COVER, BACK 20 POS MT
4	52.6524.0005	2	EA	CONN, HOUSING 5 POS RECEPT
5	52.6588.0007	2	EA	HOUSING, 7 POS 250V/3A 2.5 MM PITCH
6	52.7007.0001	6	EA	CONTACT, 28-22 AWG PHOSPHOR BRONZE TIN-PLT
7	52.8346.0001	10	EA	CONTACT, 24-30 AWG FEMALE CRIMP
8	55.2186.0001	8	EA	CABLE TIE, .10" X 4" SMALL
9	73.5119.0246	7.08	FT	WIRE, 24 AWG 3 COND TW 600V 200 DEG C <RED-YEL-BLU>
10	73.5124.1289	7.17	FT	WIRE, 24 AWG 5 COND 300V 80 DEG C <BLK-BRN-RED-GRY-WHT>
11	52.8351.0003	16	EA	CONTACT, 26-22 AWG RECP MTE (NOT SHOWN)

Pan/Tilt Control Cable Assembly (continued)

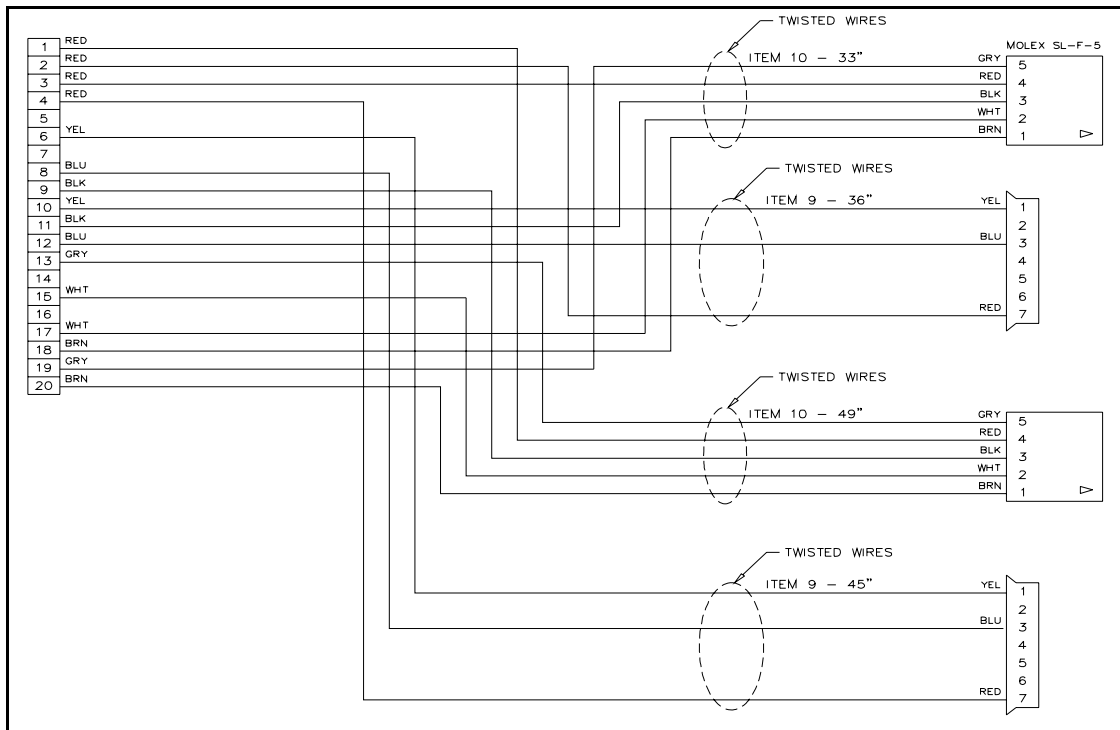
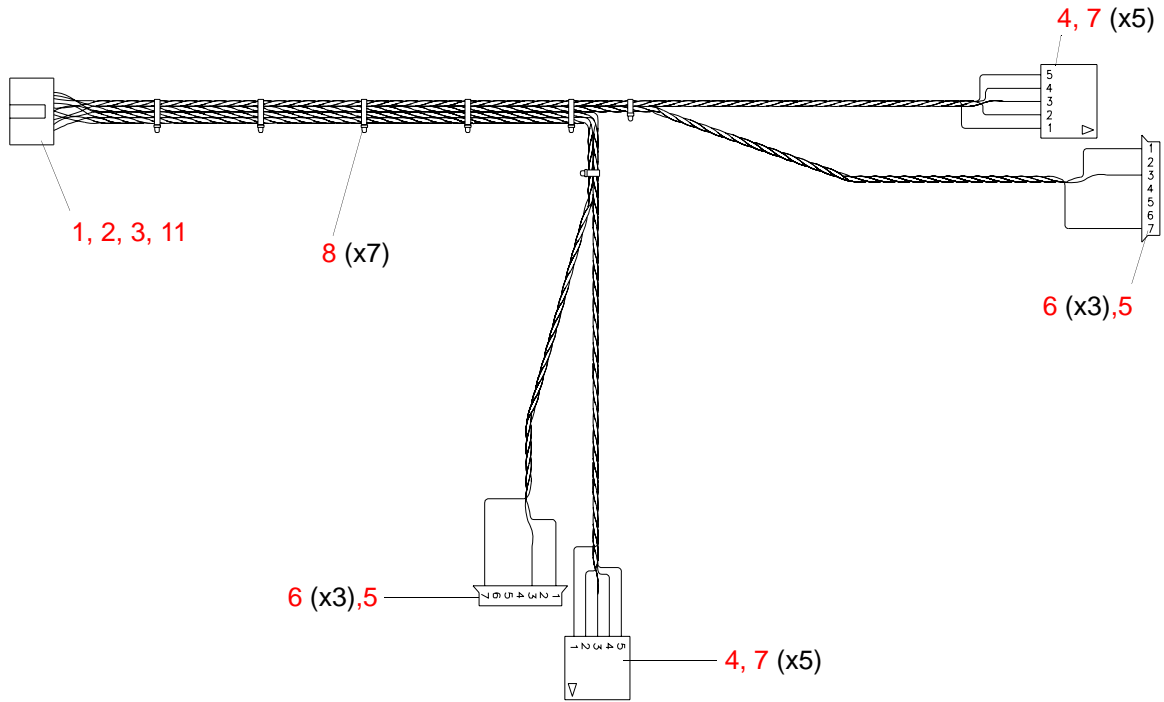


Figure 3-59: Pan/Tilt Control Cable Assembly

EMI Filter to Power Switch Cable Assembly

25.9678.0811 Rev C

Refer to [Figure 3-60](#)

No.	Item	Qty.	UM.	Description
1	52.8313.0001	2	EA	RECEPT, FASTON 1/4" 18-14 AWG FLAG DBL CRP (REEL)
2	52.8392.0001	2	EA	RECEPT, FASTON .187"X0.32" 16-14 AWG FLAG DBL CRP
3	55.2186.0001	1	EA	CABLE TIE, 0.10" 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

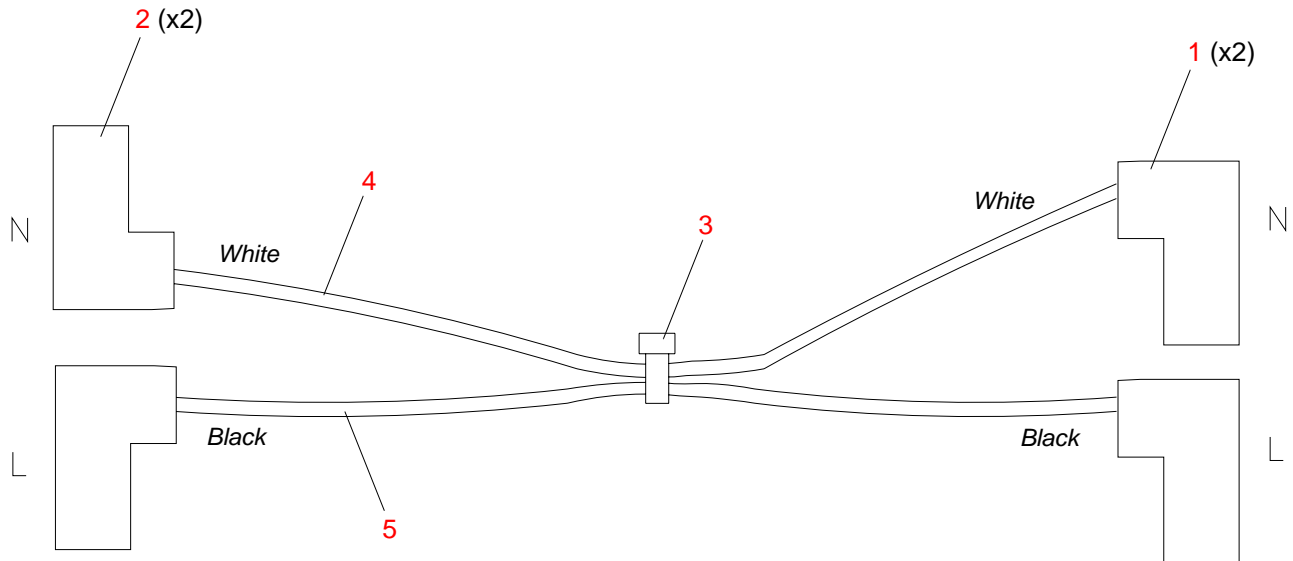


Figure 3-60: EMI Filter to Power Switch Cable Assembly

AC Input Splitter Cable Assembly

25.9678.0812 Rev E

Refer to [Figure 3-61](#)

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)

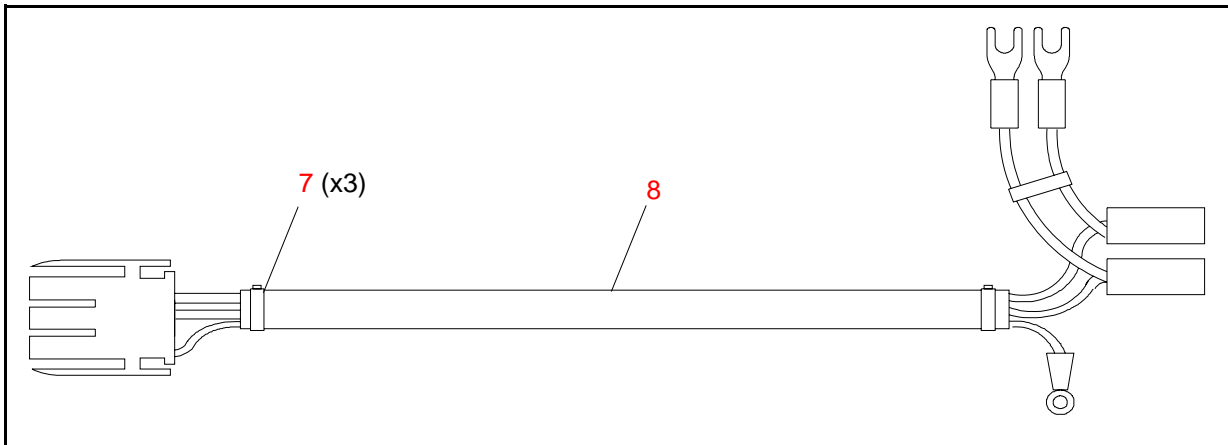
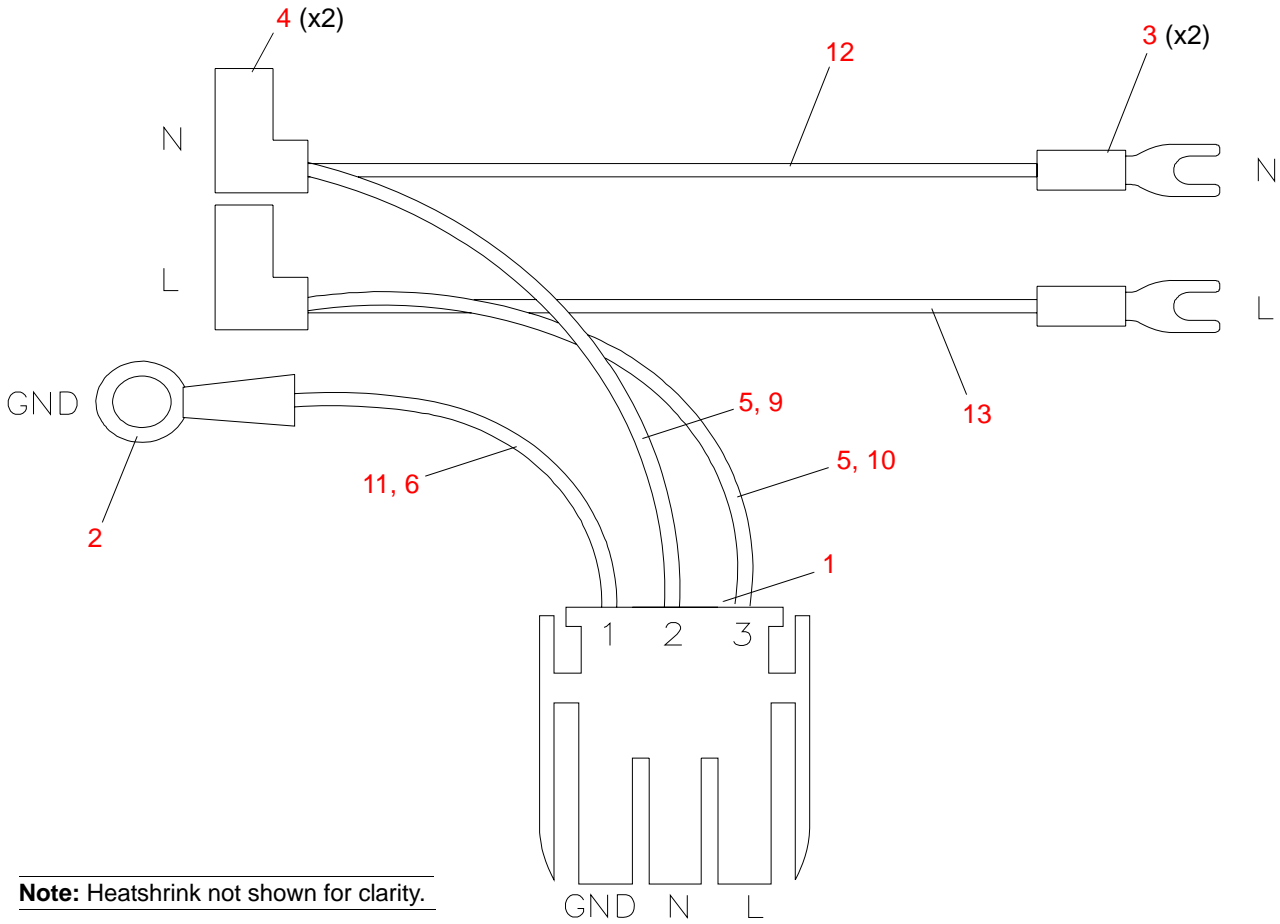


Figure 3-61: AC Input Splitter Cable Assembly

Data I/O Link Cable Assembly

25.9678.0813 Rev A

Refer to [Figure 3-62](#)

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

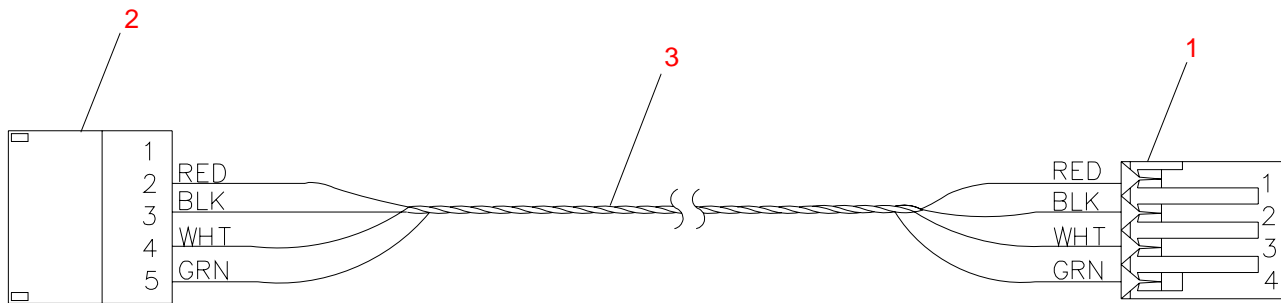


Figure 3-62: Data I/O Link Cable Assembly

Display Cable Assembly

25.9678.1825 Rev 0

Refer to [Figure 3-63](#)

No.	Item	Qty.	UM.	Description
1	52.6396.2406	2	EA	RECEPT, 6 POS MTA100 W/POL TAB WHT CLSD END
2	73.5116.0123	1.02	FT	WIRE, 24AWG 4COND TW <BLK-BRN-RED-ORN>
3	55.2186.0001	4	EA	CABLE TIE, .10" WD 4" LG SMALL
4	73.7130.0004	0.958	FT	WIRE, TUBULAR BRAID, 1/8" X 23" LG
5	73.6224.0005	0.208	FT	WIRE, 24AWG 600V 200C TFE GRN 2.5" LG
6	55.6699.0009	2.08	FT	SLEEVING, 3/8" NOM DIA POLY EXP
7	55.6621.0001	1	EA	SLEEVE, NYLON THIN WALL #6 SCR 1.0" LG

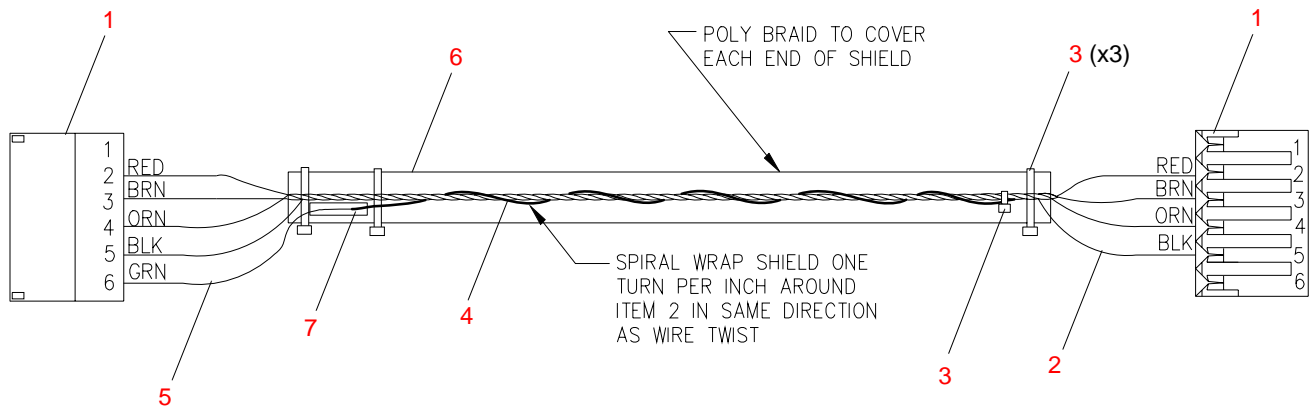


Figure 3-63: Display Cable Assembly

Ballast to Controller Cable Assembly

25.9678.0816 Rev A

Refer to [Figure 3-64](#)

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>

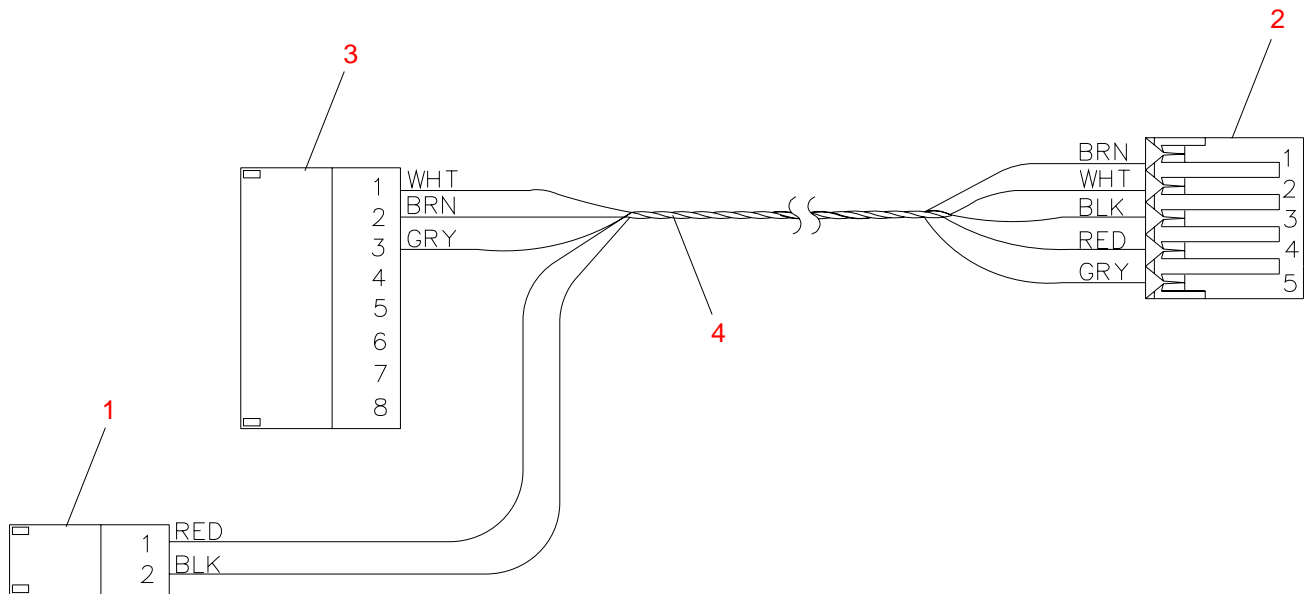


Figure 3-64: Ballast to Controller Cable Assembly

Lamp Supply to Relay Cable Assembly

25.9678.0829 Rev A

Refer to [Figure 3-65](#)

No.	Item	Qty.	UM.	Description
1	52.8245.0001	1	EA	TERM, RING #10 16 - 14 AWG REEL PIDG
2	52.8312.0001	4	EA	RECP, FASTON 1/4" 18-14 AWG INSULATED VO
3	55.2183.0001	0.33	FT	HEATSHRINK, 1/2" BLACK
4	55.2186.0001	3	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
5	55.6699.0003	3.19	FT	SLEEVING, 1/2" NOM. DIA POLY EXP BRAIDED
6	73.3516.0504	0.58	FT	WIRE, 16 AWG 300V 105 DEG C PVC GRN/YEL UL 1569
7	73.7089.0000	34.41	FT	WIRE, 22 AWG BLK 300V UL1180 TEFLON 19/34 STRANDED
8	73.7089.0009	34.41	FT	WIRE, 22 AWG WHT 300V UL1180 TEFLON 19/34 STRANDED
9	73.7130.0005	2.08	FT	WIRE, TUBULAR BRAID, 7/16"

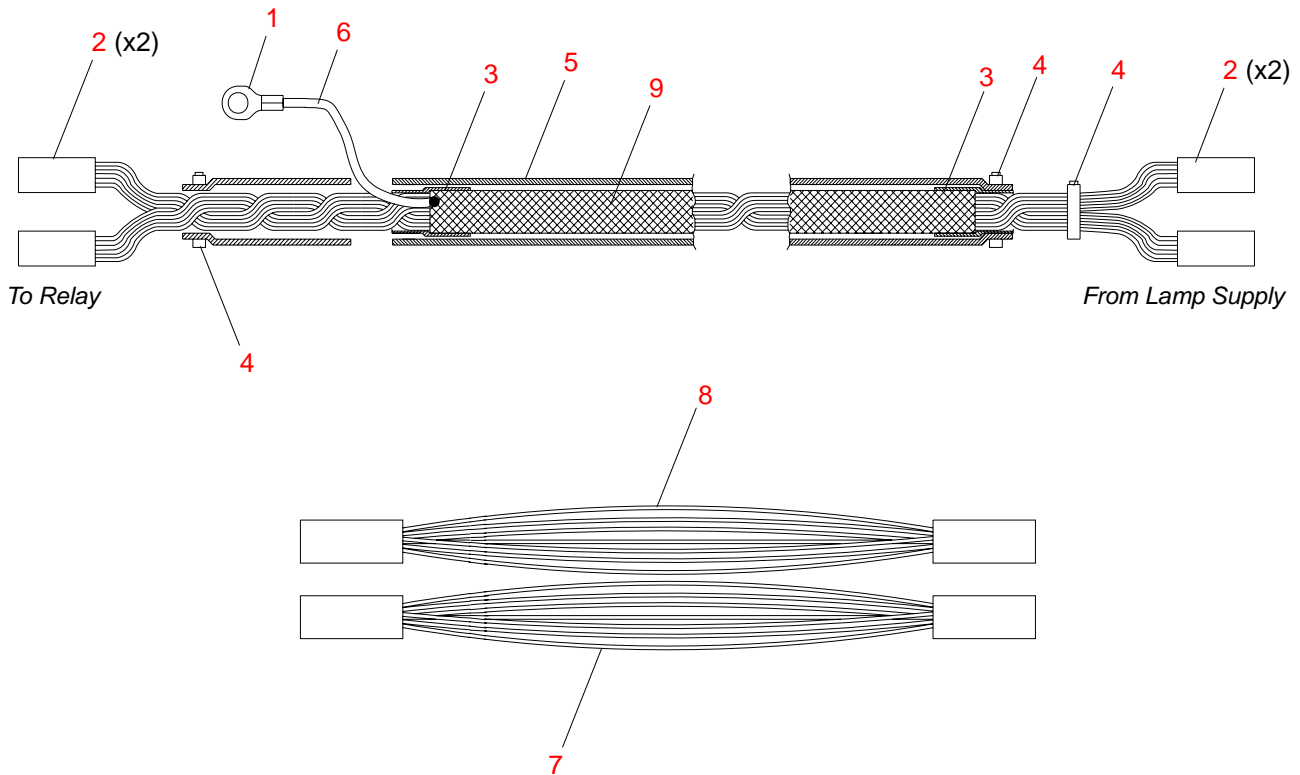


Figure 3-65: Lamp Supply to Relay Cable Assembly

DC Output Cable Assembly

25.9678.0821 Rev E

Refer to [Figure 3-66](#)

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
5	52.8274.1614	2	EA	CONN BUTT SPLICE 16-14 BLUE .150" OD MAX
6	55.2186.0001	4	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

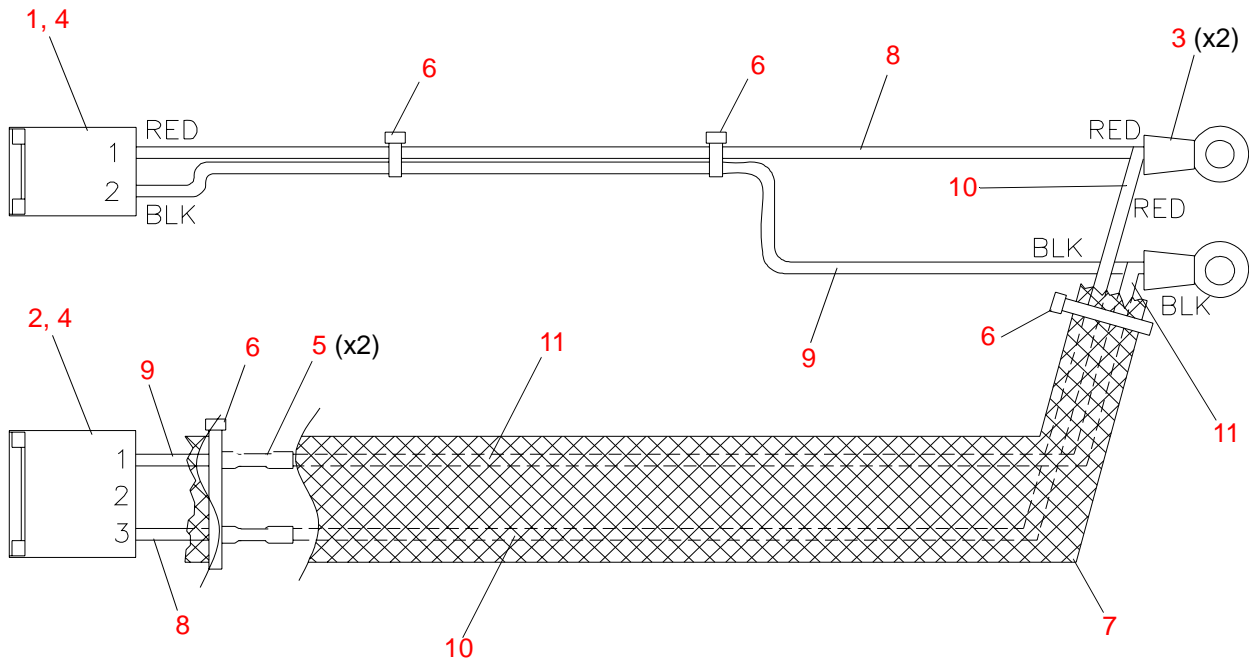


Figure 3-66: DC Output Cable Assembly

Notes

APPENDIX A.

Technical Bulletins and Notices

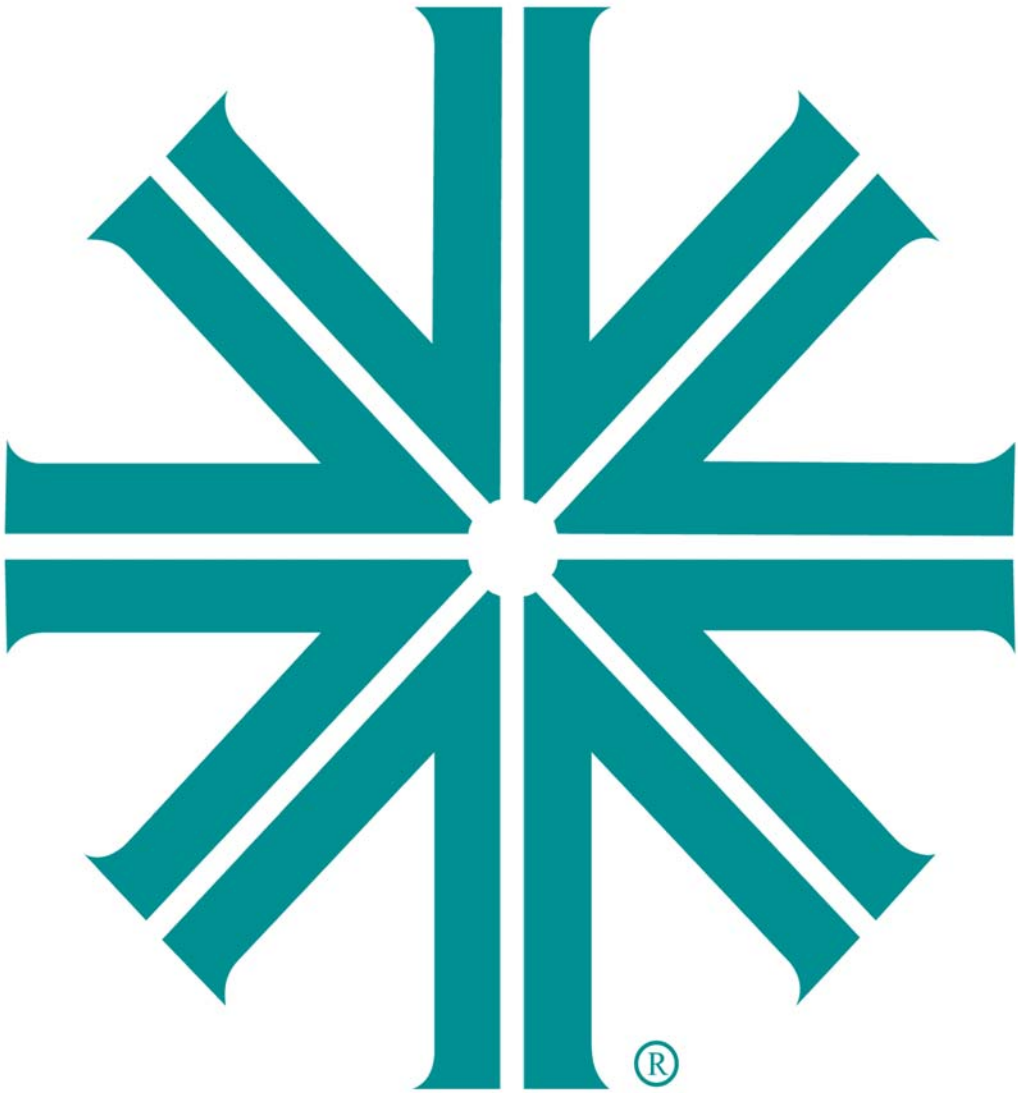
VL2500™ Wash Luminaire Technical Bulletins and Notices

The following table identifies the current technical bulletins and notices associated with the VL2500™ Wash Luminaire. If applicable, these improvements have been incorporated into this manual.

Technical Bulletin or Notice	Description
S2K-030	Series 2000 and 2500 Lamp Tilt Plate Assembly Replacement Procedure
S2K-029	VL2500 Spot/Wash Strobe Stabilizer Replacement Procedure
S2K-027	Series 2500™ New-Style Ballast Conversion Procedure
TN-248	Specified and Approved Lamps for use in VARI*LITE Luminaires
TN-231	Recommended Spare Parts Kits for VARI*LITE Luminaires
TN-229	Powering VARI*LITE Luminaires From Dimmer Circuits - NOT RECOMMENDED

Technical Bulletins, Technical Notices, Software Updates, and support, and other information is available online at <http://www.vari-lite.com> and click on the Support tab. To request access to the password-protected support areas, please contact Vari-Lite Customer Service at 1-214-647-7880 or 1-877-827-4548 or customerservice@genlytecontrols.com.

Notes



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Date: **04-June-2009** / Manual Part Number: **02.9676.0022 A**

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