

INSTALLATION AND | | | |----|----| | EN | FR | |----|----| OPERATING INSTRUCTIONS

OWNERS MANUAL

MODEL 7900 OPHTHALMIC INSTRUMENT STAND



Reliance
MEDICAL PRODUCTS, INC.

HS RELIANCE
INTERNATIONAL

SERIAL NUMBER

For your future reference, mark the serial number in the space provided.

QUALITY MANAGEMENT
SYSTEM
REGISTERED TO
ISO 13485



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IMPORTANT INFORMATION

SAFETY SYMBOLS

Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.



“DANGER”- THE DANGER SYMBOL IDENTIFIES SPECIAL INSTRUCTIONS OR PROCEDURES WHICH, IF NOT CORRECTLY FOLLOWED, COULD RESULT IN LOSS OF LIFE OR PERSONAL INJURY.



« DANGER » : LE SYMBOLE DANGER IDENTIFIE DES INSTRUCTIONS OU PROCÉDURES SPÉCIALES QUI, SI ELLES NE SONT PAS SUIVIES CORRECTEMENT, POURRAIENT CAUSER UNE PERTE DE VIE OU UNE BLESSURE.



“WARNING”- THE WARNING SYMBOL IDENTIFIES SPECIAL INSTRUCTIONS OR PROCEDURES WHICH, IF NOT CORRECTLY FOLLOWED, COULD RESULT IN PERSONAL INJURY.



« AVERTISSEMENT » : LE SYMBOLE AVERTISSEMENT IDENTIFIE DES INSTRUCTIONS OU PROCÉDURES SPÉCIALES QUI, SI ELLES NE SONT PAS SUIVIES CORRECTEMENT, POURRAIENT CAUSER UNE BLESSURE.



“CAUTION”- This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.



« PRÉCAUTION » : Ce symbole de précaution identifie des instructions ou procédures spéciales qui, si elles ne sont pas strictement suivies, pourraient causer un dommage ou la destruction de l'équipement.



“NOTE”- Note indicates points of particular or additional information.



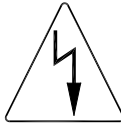
« REMARQUE » : Remarque indique des points d'intérêt particulier ou des renseignements additionnels.



Type B, Applied Part



Standby



Dangerous Voltage / Shock Hazard



Fuse Rating Specification



Protective Earth Ground



Alternating Current-AC



Safe Working Load



“Attention, Consult Accompanying Documents”

TRANSPORTATION / STORAGE CONDITIONS

Temperature: Operating: 59 to 104° F
15 to 40° C

Storage: -22 to +140° F
-30 to +60° C

Relative Humidity: Operating: 5%RH to 95%RH
without condensation
Storage: 10%RH to 100%RH,
including condensation

Atmospheric Pressure: Operating: 700hPa - 1060hPa
Storage: 500hPa - 1060hPa

1. INTRODUCTION

1.1. This Installation and Operating Instruction contains information applicable only to the Reliance® Model 7900 Ophthalmic Instrument Stand also known as Floor Unit.

1.2. Should your product not perform properly, or if you have any questions concerning the use and care of any Reliance® product, contact the Authorized Reliance® Distributor where you purchased this product or contact the Technical Service Department, Reliance® Medical Products, Inc., 3535 Kings Mills Road, Mason, Ohio 45040-2303, or call (800) 735-0358.



NOTE: Always have the model number and serial number available before contacting Reliance® or your Authorized Reliance® Distributor.



REMARQUE : Ayez toujours le numéro de modèle et le numéro de série à portée de la main avant de contacter Reliance® ou votre distributeur Reliance® autorisé.

“CLASSIFIED BY CANADIAN STANDARDS ASSOCIATION® CSA WITH RESPECT TO ELECTRIC SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH IEC 60601-1.”

According to Clause 5 in IEC 60601-1, sec 6.8.1, this Unit is classified by the following:

- The type of protection against electric shock: EQUIPMENT energized from an external electrical power source: CLASS I EQUIPMENT
- The degree of protection against electric shock: TYPE B EQUIPMENT
- The degree of protection against harmful ingress of water: ORDINARY DEGREE
- The degree of safety of application in the presence of a FLAMMABLE ANESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE: EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE
- The mode of operation: CONTINUOUS OPERATION



WARNING: TO AVOID PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT, ONLY AUTHORIZED RELIANCE® DISTRIBUTORS SHOULD INSTALL OR MOVE THE EQUIPMENT.



AVERTISSEMENT : POUR ÉVITER UNE BLESSURE OU UN DOMMAGE À L'ÉQUIPEMENT, SEULS LES DISTRIBUTEURS RELIANCE® AUTORISÉS DEVRAIENT INSTALLER OU DÉPLACER L'ÉQUIPEMENT.



WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.



AVERTISSEMENT : POUR ÉVITER UN INCENDIE OU UN RISQUE DE CHOC ÉLECTRIQUE, N'EXPOSEZ PAS CET ÉQUIPEMENT À LA PLUIE OU À L'HUMIDITÉ.



WARNING- TO AVOID PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT, ONLY TRAINED/QUALIFIED PERSONNEL WHO HAVE READ THIS MANUAL SHOULD OPERATE THIS EQUIPMENT. OPERATION BY UNAUTHORIZED USERS SHOULD BE PREVENTED.



AVERTISSEMENT : POUR ÉVITER UNE BLESSURE OU UN DOMMAGE À L'ÉQUIPEMENT, SEUL DU PERSONNEL ENTRAÎNÉ/QUALIFIÉ QUI A LU CE MANUEL DEVRAIT FAIRE FONCTIONNER CET ÉQUIPEMENT. LE FONCTIONNEMENT PAR DES UTILISATEURS NON AUTORISÉS DEVRAIT ÊTRE ÉVITÉ.



WARNING- TO AVOID PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT, CALL YOUR AUTHORIZED RELIANCE® DISTRIBUTOR OR THE TECHNICAL SERVICE DEPARTMENT IF ANY PART OF THE EQUIPMENT FAILS. ONGOING USE OF MALFUNCTIONING EQUIPMENT IS NOT RECOMMENDED.



AVERTISSEMENT : POUR ÉVITER UNE BLESSURE OU UN DOMMAGE À L'ÉQUIPEMENT, APPELÉZ VOTRE DISTRIBUTEUR RELIANCE® AUTORISÉ OU LES SERVICES TECHNIQUES SI UNE PARTIE QUELCONQUE DE L'ÉQUIPEMENT TOMBE EN PANNE. L'UTILISATION CONTINUE D'UN ÉQUIPEMENT DÉFAILLANT N'EST PAS RECOMMANDÉE.



WARNING: EXPLOSION HAZARD. THIS EQUIPMENT MUST NOT BE USED IN THE PRESENCE OF FLAMMABLE ANESTHETICS.



AVERTISSEMENT : RISQUE D'EXPLOSION. CET ÉQUIPEMENT NE DOIT PAS ÊTRE UTILISÉ EN PRÉSENCE D'ANESTHÉSQUES INFLAMMABLES

POTENTIAL ELECTROMAGNETIC or OTHER INTERFERENCE

This equipment generates uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving device.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.


This product contains lead. Check with local ordinance or laws for proper disposal.

TECHNICAL SPECIFICATIONS

Rating for 120V Instrument Stand

This equipment is rated Class I, Type B


Equipment		Model
Instrument Stand		7900
Volts	Hertz	Amps
120V	50/60	10.0
Class I	Type B	




Rating for 230V Instrument Stand

This equipment is rated Class I, Type B

Equipment		Model
Instrument Stand		7900
Volts	Hertz	Amps
230V	50/60	6.3
Class I	Type B	




U.S. Patent No.

D503,233	D512,507	5,717,480
D504,515	D514,701	5,907,387
D506,257	D424,200	6,264,329

2. INSTALLATION

2.1. Unpacking

2.1.1. Base Unit

2.1.1.1 Remove all external shipping tapes and wrappings. Remove the Base Unit from the skid and set it in the desired, final location.

2.1.1.2 Loosen the two screws that hold the Back Cover (Figure 1) in place, located in the bottom of the Cover. Remove the screw located in the top of the Back Panel. Panels lift off the Base Unit.

2.1.1.3. Squeeze the Slit Lamp Arm Lock Release Lever (Figure 1) and at the same time push down on Slit Lamp Arm. Arm should move approximately 1/4 inch. Release the Lock Release Lever to set the Slit Lamp Arm lock.

2.1.1.4. At the rear of the Base Unit, remove the wood brace beneath the counter balance weights and the cords which hold incremental weights to the large weight. While pushing firmly down (50 pounds force) on the Slit Lamp Arm, again squeeze the Lock Release Lever. Allow the Slit Lamp Arm to rise to its full height and again release the Lock Release Lever.

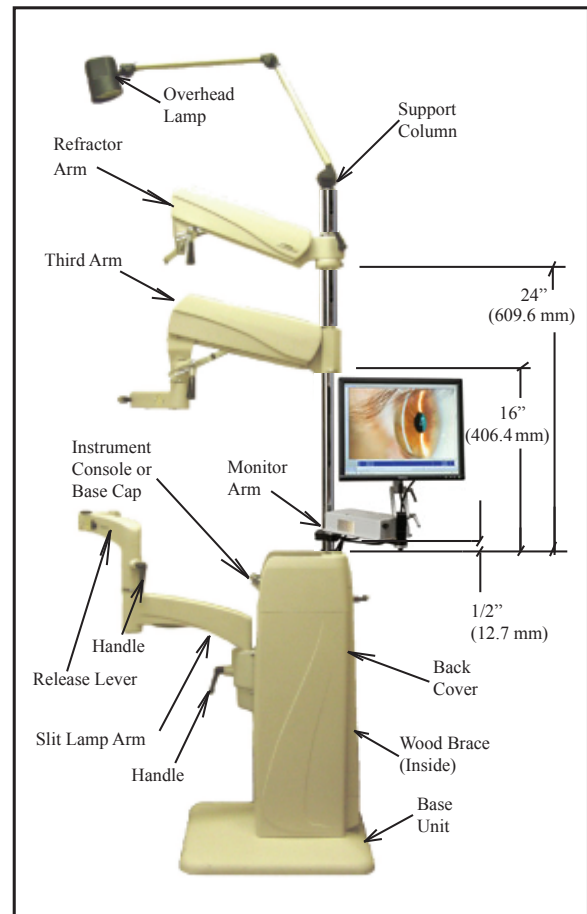


FIGURE 1



WARNING- TO AVOID PERSONAL INJURY OR DAMAGE TO THE INSTRUMENT STAND CAUSED BY THE STAND TIPPING OVER, DO NOT OVERLOAD THE REFRACTOR ARM, THIRD ARM, OR SLIT LAMP ARM.



AVERTISSEMENT : POUR ÉVITER UNE BLESSURE OU UN DOMMAGE AU SUPPORT À INSTRUMENT CAUSÉ PAR UN RENVERSEMENT DU SUPPORT, NE SURCHARGEZ PAS LE BRAS RÉFRACTEUR, LE TROISIÈME BRAS OU LE BRAS DE LA LAMPE À FENTE.



WARNING: WITH WEIGHT BRACE REMOVED, THE SLIT LAMP ARM ASSEMBLY WILL RISE ABRUPTLY IF RELEASE LEVER IS DEPRESSED.



AVERTISSEMENT : LE SUPPORT LESTÉ ÉTANT RETIRÉ, L'ASSEMBLAGE DU BRAS DE LA LAMPE À FENTE SE LÈVERA ABRUPTEMENT SI LE LEVIER DE DÉGAGEMENT EST PRESSÉ.



WARNING – TIP-OVER HAZARD: NEVER GROUP THREE INSTRUMENT ARMS TOGETHER ON ONE SIDE OF THE STAND. DISTRIBUTE INSTRUMENT WEIGHT AS EQUALLY AS PRACTICAL. AVOID FAST OR FORCEFUL MOVEMENT OF INSTRUMENT ARMS.



AVERTISSEMENT : RISQUE DE BASCULEMENT. NE REGROUPEZ JAMAIS LES TROIS BRAS D'INSTRUMENTS ENSEMBLE SUR UN CÔTÉ DU SUPPORT. DISTRIBUEZ LE POIDS DES INSTRUMENTS AUSSI ÉGALEMENT QUE POSSIBLE. ÉVITEZ UN MOUVEMENT RAPIDE OU VIOLENT DES BRAS D'INSTRUMENTS.

2.2. Instrument Console/Base Cap



CAUTION- The power supply cord should not be connected to the power supply during the installation process.



PRÉCAUTION : Le cordon d'alimentation ne devrait pas être connecté au bloc d'alimentation durant le processus d'installation.



NOTE: If you are installing room light controls on this Instrument Stand, also refer to the “ECLIPSE® Room Light Control Operating Instructions Section.”



REMARQUE: Si vous installez des commandes d'éclairage salle sur ce stand instrument, se reporter également à la “ECLIPSE® light salle de contrôle d'exploitation des instructions de l'article.”

2.2.1. Replacement or Repair

In the event that the Instrument Console or Base Cap must be mounted or removed for replacement or repair purposes, it will be necessary to temporarily remove any assemblies on the Support Column. To install a Console, connect the four connectors on top of the Base Unit to the matching connectors hanging from the bottom of the Console.

The Lamp Jumper Cable will drop through the large opening and be connected to the matching connector that hangs from underneath the Support Column. Figure 2 illustrates the connections that must be made. Align the two pins located near the front of the Console in the matching holes on top of the Base Unit. Gently push the Console down to secure.

To disassemble or remove the Console, pull the Console up in the front and disconnect the four connectors from the Base Unit. As mentioned above, any assemblies on Support Column must be removed before the Console itself can be removed. If the Overhead Lamp has not already been removed, the Lamp Jumper must be disconnected from the lamp plug under the Support Column.

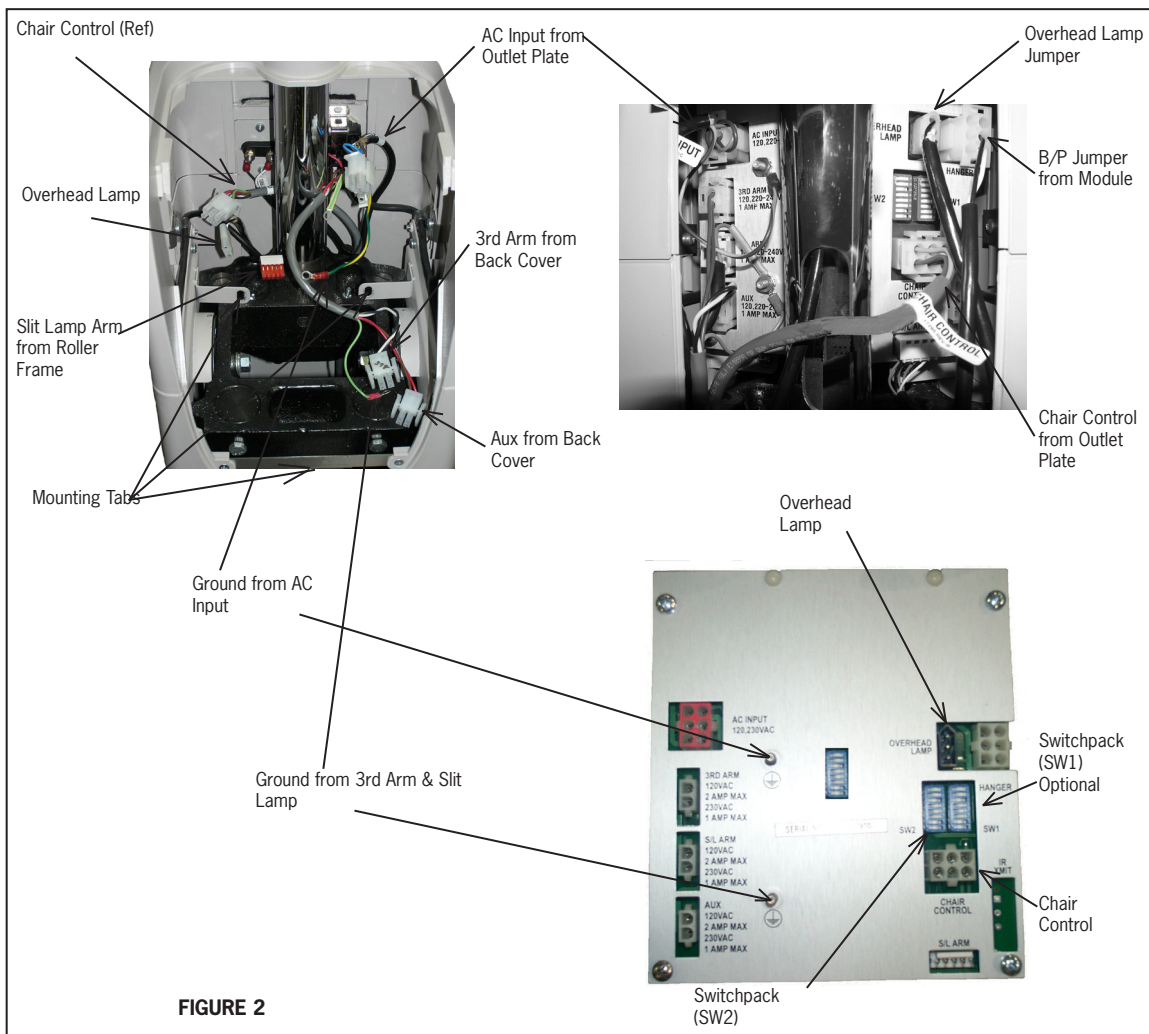




FIGURE 2

2.3. Support Column Installation


Remove Phillips Head Shipping Screw. Unwrap the Support Column. Remove the column Support Pin and the Collar from the Installation Packet. Insert the Column in the hole at the top of the Base Unit.


 **CAUTION** – Ensure there is a clear path for the support column between the opening in the console and the hole in the base frame. If cables impede path simply move them aside.

 **PRÉCAUTION** : Assurez-vous qu'il y a un passage dégagé pour la colonne de soutien entre l'ouverture dans la console et le trou dans le cadre de la base. si des câbles nuisent, poussez-les simplement de côté.

Line up the hole in the Column with the hole in the Base Unit and insert the Support Pin. Note that the small screw at the top of the Column faces the rear of the Base Unit. Tighten the set screws under the Support Pin. Remove set screw from Installation Packet and install where shipping screw had been. Slide the Collar down firmly against the Console/Base Cap. Insert and tighten set screw.

2.4. CONFIGURING THE SYSTEM

 **CAUTION** – If the Dip Switches are not configured properly before turning on power to the equipment via the STBY Switch, damage to the equipment or Instrument Bulbs may occur.

 **PRÉCAUTION** : Si les commutateurs dip ne sont pas configurés correctement avant d'activer l'alimentation à l'équipement par l'interrupteur STBY (EN ATTENTE), un dommage à l'équipement ou aux bulbes d'instrument peut se produire.

2.4.1. CONSOLE: CONFIGURING DIP SWITCHES ON THE CIRCUIT BOARD (SW2)

2.4.1.1. Switchpack SW2 on the Console must be configured for proper operation of the Stand. Individual switches 1, 2 and 3 control the voltage and power to the Indirect Ophthalmoscope. See Table 1.

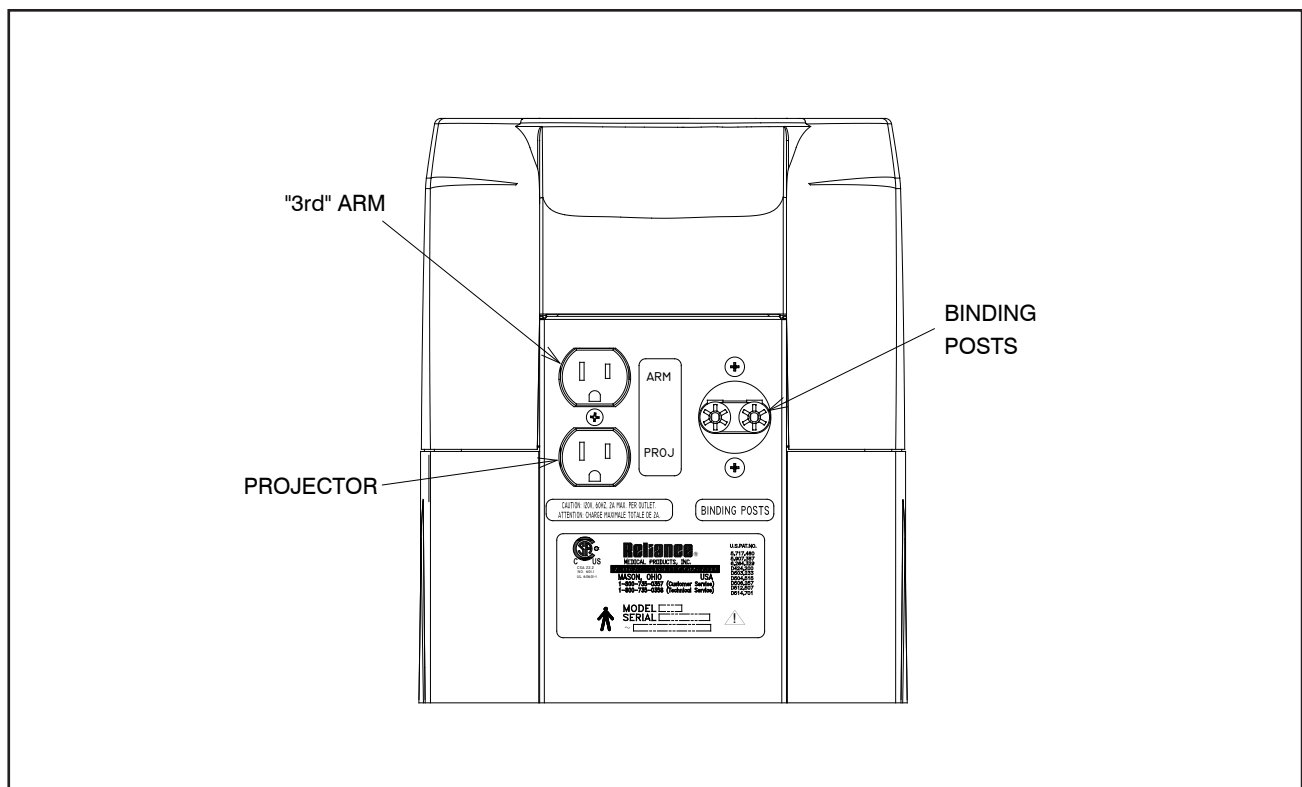
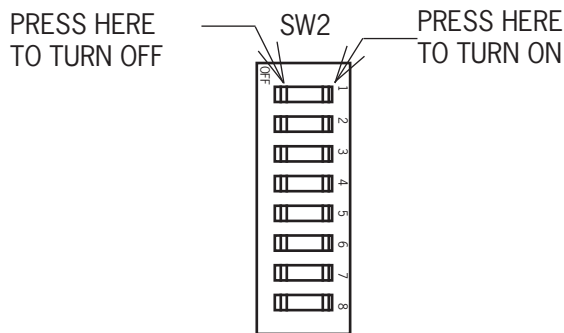


FIGURE 3

TABLE 1
SWITCH SETTINGS FOR B/P VOLTAGES

SW2-1	SW2-2	SW2-3	B/P VOLTAGE
OFF	OFF	OFF	6.5V/18W INCANDESCANT
OFF	OFF	ON	6V/10W HALOGEN
ON	OFF	ON	6V/20W HALOGEN
OFF	ON	ON	12V/12W HALOGEN



Switch 4

- Turn Switch 4 ON if your system contains an indirect hanger (Figure 13) for an Indirect Ophthalmoscope and you want that hanger to automatically supply power to the Instrument.
- Turn Switch 4 OFF if your system does not contain a hanger for an Indirect Ophthalmoscope. In this case, power is turned ON and OFF to the Instrument via the B/P Switch on the front panel (See Switch 5 on SW1).

Switch 5

- If you want your system to beep whenever a switch is pressed, set Switch 5 ON.
- If you do not want to hear a beep whenever a switch is pressed, set Switch OFF.

Switches 6, 7 and 8

- Reserved

2.4.2. BASE CAP: CONFIGURING THE BEEP-ON-SWITCH FEATURE

2.4.2.1. The Base Cap has one configurable feature unrelated to the Eclipse® Room Light Controls: the Beep-on-Switch Feature. The Factory Default Setting for the Beep-on-Switch Feature is Off. The following programming sequence is required if you want to turn the Beep-on-Switch Feature On.

To configure the Base Cap Beep-on-Switch Feature:

- Turn Off the Overhead Lamp..
- Press and hold the Lamp Down Switch for five (5) seconds.
- If a long 1-second beep is heard, the Beep-on-Switch Feature has been turned On.
- If a short 0.2-second beep is heard, the Beep-on-Switch Feature has been turned Off.
- Simply press and hold the Lamp Up Switch for five (5) seconds to toggle the Beep-on-Switch Feature On and Off

2.5. Third Arm

2.5.1. If supplied, unpack the Third Arm. Slide the Clamp Sleeve carefully down over the Support Column until positioned as shown in Figure 1. Tighten the clamp screw using the hex key wrench provided.

2.5.2. Position the Clamp initially so that the clamp screw is toward the rear of the Base Unit. If necessary, this position can be altered to center the rotation of the arm about the Column (300°) within the desired range of movement.

2.5.3. Springs are used to counterbalance the Instrument mounted on the arm. Adjustment of the springs is by means of a screw which is accessible upon removal of Plug Button. Rotating the screw clockwise increases the tension. With the Instrument in place, adjust the screw to balance the Instrument.

2.5.4. Plug the Third Arm into the receptacle marked “3RD ARM” located on the Console or Base Cap.



WARNING – THE MAINS OUTLET LOCATED ON THE BACK OF THE CONSOLE OR BASE CAP MARKED “ARM” AND THE MAINS OUTLET LOCATED ON THE THIRD ARM ITSELF, ARE INTENDED TO SUPPLY POWER TO A KERATOMETER OR SIMILAR MEDICAL DEVICE COMPLYING WITH IEC 60601-1. ONCE CONNECTED, RESULTING LEAKAGE CURRENTS MUST COMPLY WITH IEC 60601-1-1 FOR MEDICAL ELECTRICAL (ME) SYSTEMS. DO NOT CONNECT UNAUTHORIZED DEVICES.”



AVERTISSEMENT : LA PRISE DE COURANT SITUÉE À L'ARRIÈRE DE LA CONSOLE OU DU COUVERCLE MARQUÉE « ARM » (BRAS) ET LA PRISE DE COURANT SITUÉE SUR LE TROISIÈME BRAS LUI-MÊME SONT CONÇUES POUR FOURNIR L'ALIMENTATION À UN KÉRATOMÈTRE OU AUTRE APPAREIL MÉDICAL SIMILAIRE CONFORME AVEC IEC 60601-1. UNE FOIS L'APPAREIL CONNECTÉ, LES COURANTS DE FUITE RÉSULTANTS DOIVENT ÊTRE CONFORMES À IEC 60601-1-1 POUR LES SYSTÈMES ÉLECTRIQUES MÉDICAUX. NE CONNECTEZ PAS DE DISPOSITIFS NON AUTORISÉS.

2.6. Refractor Arm - Dual Lock

2.6.1. Unpack the Refractor Arm. Slide the Clamp Sleeve carefully down over the Support Column until positioned as shown in Figure 1. Tighten the clamp screw securely, using the hex key wrench provided.

2.6.2. Note that the chrome Plug Button in the front of the Refractor Arm Assembly covers the counterbalance spring adjusting screw. If necessary, after the Instrument is attached to the Refractor Arm, remove this button and adjust the screw, turning it clockwise to increase tension. Optimum adjustment is reached when the Refractor Arm barely supports the weight at the upper limit of its travel. The Refractor Arm will support Instruments weighing a maximum of 20 pounds.

2.7. Overhead Lamp

2.7.1. Unpack the Overhead Lamp Assembly. Remove the small screw near the top of the Support Column. Feed the Lamp Cord and Coiled Extension Cord into the top of the Support Column until the Overhead Lamp can be inserted into the Column. Replace the screw previously removed.

2.7.2 Remove the Support Tube Pin (Item 11, Fig. 20) to allow the Overhead Lamp Cord to drop through the Support Column. Replace the Support Pin, being careful not to pinch the Overhead Lamp Cord. Insert the plug from the Overhead Lamp Extension Cord into the matching connector hanging down from the rear of the Console.

2.8. Final Assembly

2.8.1. Console/Base Cap

If an additional Instrument is to be connected to the Binding Posts or if any auxiliary equipment is to be plugged into the outlets, make these connections at this time.

2.9 Slit Lamp Arm

2.9.1. After slit lamp arm is unpacked and set into place, the option of changing the instrument stand can be done at this time. For example if the unit is order as a right-handed unit and needed to be changed to left-handed unit; follow the listed instructions below.

2.9.1.1 To convert the Slit Lamp Arm to a left-handed unit, remove the four (4) #8-32 Screws that hold the Cover Plates with the Outlet and Rocker Switch. Carefully pull the Plates off of the Upper Arm. Loosen the center Screw holding the two plates together but do not completely remove it. Pull the two Plates apart and rotate them so the Outlet and Rocker Switch are now on the opposite side of the Upper Arm.

Be careful not to pinch any wires between the Plates and the Upper Arm when making this change.

2.9.1.2 Loosen the three Set Screws that lock the Arm Extension in place at the end of the Slit Lamp Arm. Loosen the Black Knob on top of the Slit Lamp Arm. Rotate Arm Extension so it is approximately 60 degrees from the side of the Upper Arm of the Slit Lamp Arm and tighten the Set Screws. Tighten the Black Knob on top of the Slit Lamp Arm. Remove Adjustable Handle and Plug Button from the Arm Extension and place them on the opposite side they were on. (See Figure 4) and (See Figures 4a, 4b, 4c, 4d page 10 and Figure 27 page 42 for details.)

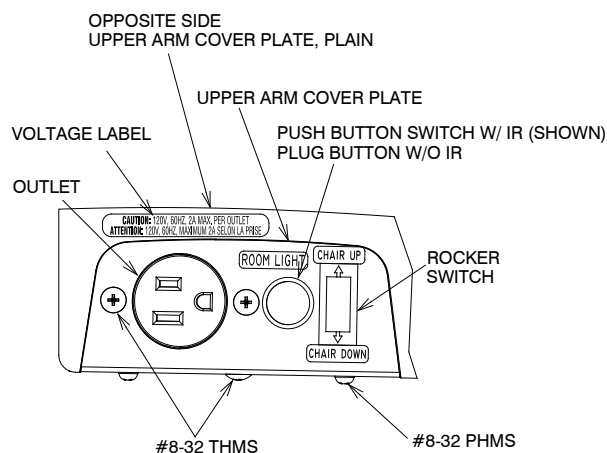


FIGURE 4

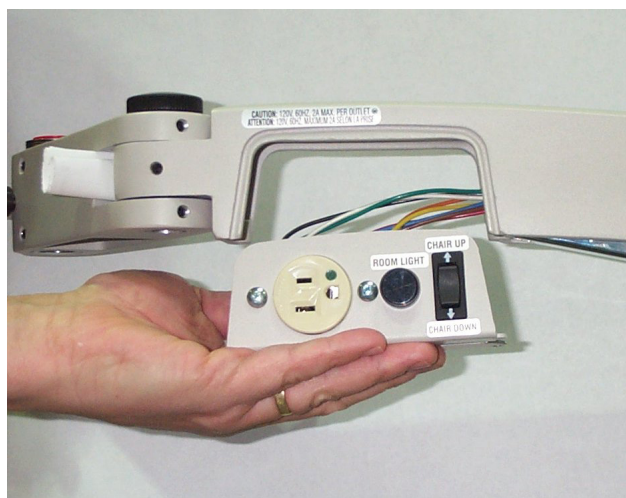


FIGURE 4A

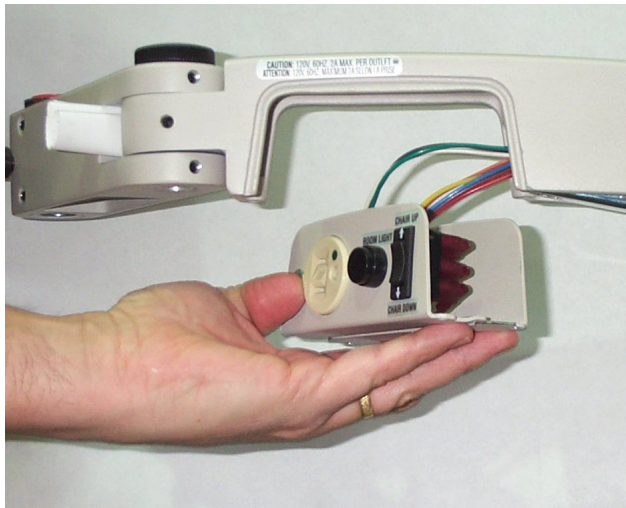


FIGURE 4B

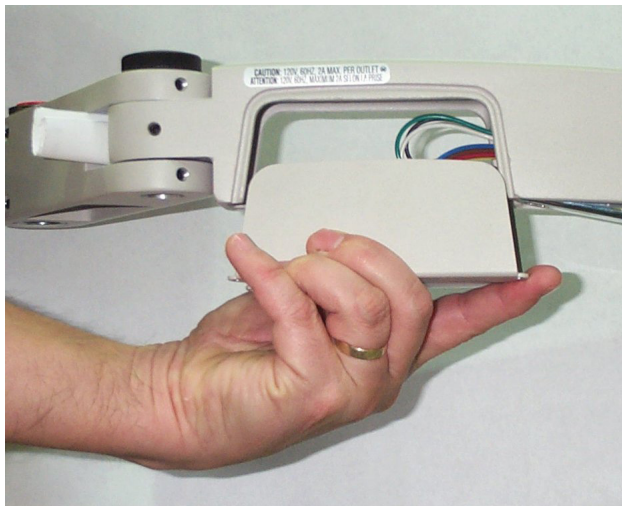


FIGURE 4C

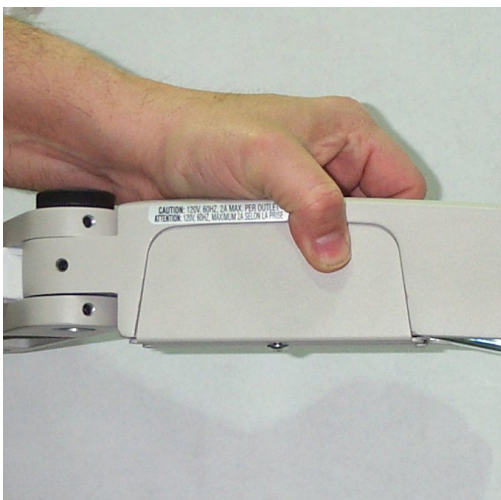


FIGURE 4D

Reference to changing the Instrument Stand from a right-handed to a left-hand unit.

2.10. Chair Assembly

2.10.1 The chair control switches located on the Floor Unit may control any Reliance® low voltage chair. Refer to the chair's Installation and Operating Instructions for unpacking and assembling the chair.

2.10.2. A Chair Control Cable is provided to control the vertical movement of the Chair Base from the Floor Unit. One end of the cable is to be inserted into the black circular receptacle on the Outlet Plate Assembly. See Figure 4. The other end of the cable is to be inserted into the mating receptacle marked "CHAIR CONTROL CABLE" in the rear of your Reliance® chair.



CAUTION—Accessory equipment connected to analog and digital interfaces must be certified according to the respective IEC standards (i.e. IEC 60950 for data processing equipment and IEC 60601-1 for medical equipment). Furthermore, all configurations shall comply with IEC 60601-1-1 for medical equipment systems. Anyone who connects additional equipment to the Signal Input Part (SIP) or Signal Output Part (SOP) configures a medical system, and is therefore responsible that the system complies with the requirements of IEC 60601-1-1. If in doubt, consult the Technical Service Department, or your local "Reliance"® Distributor."



PRÉCAUTION : L'équipement accessoire connecté aux interfaces analogues et digitales doit être certifié selon les normes IEC respectives (c.-à-d., IEC 60950 pour l'équipement de traitement de données et IEC 60601-1 pour l'équipement médical). De plus, toutes les configurations doivent être conformes à IEC 60601-1-1 pour les systèmes électriques médicaux. Quiconque connecte de l'équipement supplémentaire à la partie entrée de signal ou à la partie sortie de signal configure un système médical et est par conséquent responsable de la conformité du système avec les exigences de IEC 60601-1-1. En cas de doute, consultez le service technique ou votre distributeur Reliance® local.

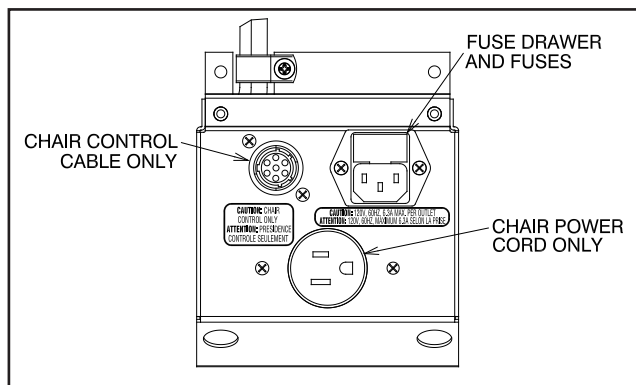


FIGURE 5



WARNING- THE MAINS OUTLET LOCATED ON THE OUTLET PLATE ASSEMBLY IS INTENDED TO SUPPLY POWER TO A RELIANCE® PATIENT EXAMINATION CHAIR OR SIMILAR MEDICAL DEVICE COMPLYING WITH IEC 60601-1. ONCE CONNECTED, RESULTING LEAKAGE CURRENTS MUST COMPLY WITH IEC 60601-1-1 FOR MEDICAL ELECTRICAL (ME) SYSTEMS. DO NOT CONNECT UNAUTHORIZED DEVICES."



AVERTISSEMENT : LA PRISE DE COURANT SITUÉE SUR L'ASSEMBLAGE DE PLAQUE DE COURANT EST CONÇUE POUR FOURNIR L'ALIMENTATION À UNE CHAISE D'EXAMEN DE PATIENT RELIANCE® OU À UN DISPOSITIF MÉDICAL SIMILAIRE CONFORME À IEC 60601-1. UNE FOIS L'APPAREIL CONNECTÉ, LES COURANTS DE FUITE RÉSULTANTS DOIVENT ÊTRE CONFORMES À IEC 60601-1-1 POUR LES SYSTÈMES ÉLECTRIQUES MÉDICAUX. NE CONNECTEZ PAS DE DISPOSITIFS NON AUTORISÉS.

2.11. Miscellaneous

2.11.1. When attaching an instrument to the Slit Lamp Arm, note the Thrust Bearing which should be in place between the instrument and the arm. See Figure 4.

2.11.2. Proper balance of an Instrument on the Slit Lamp Arm is achieved by adding or removing counter-balance weights as shown in Figure 5. See Table 2 for weight settings.

2.11.3. Finally, plug the power cord into a wall receptacle and check all electrical functions as described in the Operating Instructions. If all functions are normal, attach the Base Unit Rear Cover.

2.11.4. To disconnect power from the Instrument Stand, unplug power cord from wall receptacle.

3. OPERATING INSTRUCTIONS

3.1. Slit Lamp Arm

3.1.1. The Slit Lamp Arm is counterbalanced by means of weights and all its movements are controlled manually.

3.1.2. The vertical lock for this arm is controlled by the Lock Release Lever located under the Slit Lamp Arm. (See Figure 1). Grip the Slit Lamp Arm and depress the Lock Release Lever to unlock the Slit Lamp Arm. Releasing the Lock Release Lever will lock vertical travel in both directions.



WARNING: SLIT LAMP ARM WILL RISE ABRUPTLY IF RELEASE LEVER IS DE-PRESSED AND ARM IS NOT COUNTER-BALANCED.



AVERTISSEMENT : LE BRAS DE LA LAMPE À FENTE SE LÈVERA ABRUPTEMENT SI LE LEVIER DE DÉGAGEMENT EST PRESSÉ ET QUE LE BRAS N'EST PAS CONTREBALANCÉ.

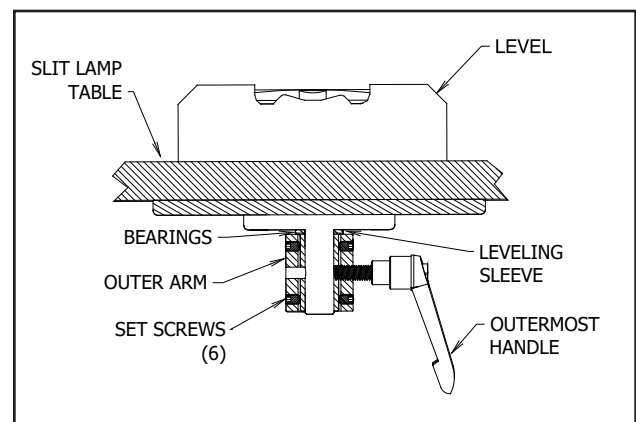


FIGURE 6

3.1.3. Incremental weights are added or removed to achieve proper balance in accordance with the Weight Settings-Slit Lamp Arm chart. (See also Figure 5).

3.1.4. The knob under the innermost pivot point of the Slit Lamp Arm (Figure 1) is to restrain rotation of the complete arm assembly. The knob at the intermediate joint on the Slit Lamp Arm locks rotation of the outer arm section. The knob directly under the Slit Lamp locks rotation of the Instrument about its pivot point.

INSTRUMENT GROSS WEIGHT-lbs.(kg)	INCREMENTAL WEIGHTS
12-16 (5.44-7.25)	None
16-20 (7.25-9.0)	Light
20-23 (9.0-10.43)	Medium
23-25 (10.43-11.34)	Heavy
25-28 (11.34-12.7)	Light, Medium
28-30 (12.7-13.6)	Light, Heavy
30-33 (13.6-14.97)	Medium, Heavy
33-35 (14.97-15.88)	2 Heavy
35-38 (15.88-17.24)	Light, Medium, Heavy
38-40 (17.24-18.14)	1 Light, 2 Heavy
40-43 (18.14-19.5)	1 Medium, 2 Heavy
43-45 (19.5-20.41)	3 Heavy
45-48 (20.41-21.77)	1 Light, 1 Medium, 2 Heavy
48-50 (21.77-22.68)	1 Light, 3 Heavy
50-53 (22.68-24.04)	1 Medium, 3 Heavy
53-55 (24.04-24.95)	4 Heavy
55-58 (24.95-26.31)	1 Light, 1 Medium, 3 Heavy
58-60 (26.31-27.22)	1 Light, 4 Heavy

Table 2
Weight Settings-Slip Lamp Arm Chart

3.1.5. The outer end of the Slit Lamp Arm contains a Leveling Sleeve and six set screws for field re-leveling of the Instrument, if necessary. A hex key wrench (1/8) and a small, accurate level will be required. Remove the Instrument from the table and refer to Figure 4.



WARNING- WITH INSTRUMENT REMOVED, ARM WILL RISE ABRUPTLY IF RELEASE LEVER IS DEPRESSED.



AVERTISSEMENT : L'INSTRUMENT ÉTANT RETIRÉ, LE BRAS DE LA LAMPE À FENTE SE LÈVERA ABRUPTEMENT SI LE LEVIER DE DÉGAGEMENT EST PRESSÉ.

The outermost Handle must be threaded into the Leveling Sleeve, but not tightened. Rotate the Slit Lamp Arm to the examining position and tighten the other (2) handles. It may be necessary to loosen several set screws to reposition screws securely and check level again.



FIGURE 7

3.1.6. The outermost Handle can be adjusted to any preferred, locked position. Simply pull out on handle, rotate as desired, and release.

3.1.7. The Outer Arm contains an outlet for Instrument power, and a Rocker Switch to control vertical movement of the chair. The Chair Control Cable (Item 17, Figure 20) must be installed. (Refer to Section 2.9). Depress the "UP" arrow on the switch to raise the chair. Depress the "Down" arrow to lower the chair.



WARNING- THE MAINS OUTLET LOCATED ON THE SLIT LAMP ARM IS INTENDED TO SUPPLY POWER TO A SLIT LAMP COMPLYING WITH IEC 60601-1. ONCE CONNECTED, RESULTING LEAKAGE CURRENTS MUST COMPLY WITH IEC 60601-1-1 FOR MEDICAL ELECTRICAL (ME) SYSTEMS. DO NOT CONNECT UNAUTHORIZED DEVICES.



AVERTISSEMENT : LA PRISE DE COURANT SITUÉE SUR LE BRAS DE LA LAMPE À FENTE EST CONÇUE POUR FOURNIR L'ALIMENTATION À UNE LAMPE À FENTE CONFORME À IEC 60601-1. UNE FOIS L'APPAREIL CONNECTÉ, LES COURANTS DE FUITE RÉSULTANTS DOIVENT ÊTRE CONFORMES À IEC 60601-1-1 POUR LES SYSTÈMES ÉLECTRIQUES MÉDICAUX. NE CONNECTEZ PAS DE DISPOSITIFS NON AUTORISÉS.



NOTE: Switch action is momentary; but may be programmed to function as maintained depending on the chair model. See chair manual for programming instructions.



REMARQUE : L'action de l'interrupteur est « momentané », mais peut être programmé pour fonctionner comme « maintenu » selon le modèle de chaise. Consultez le manuel de chaise pour les instructions de programmation.

3.2. Third Arm

3.2.1. Three knobs control all motions of this Arm Assembly. The one nearest the Column controls rotation about the Support Column. The lever at the pivot point of the Outer Arm controls both vertical movement and the rotation of the Outer Arm. The small knob in the Outer Arm controls rotation of the Instrument at the outermost pivot point.

3.2.2. Adjustment of the Spring counterbalance is as described in the Installation Instructions, Section 2.5.3.

3.3. Refractor Arm

3.3.1. If the Refractor Arm is of the dual lock style, the knob nearest the Support Column controls the clamp for locking rotation of the entire Refractor Arm Assembly about the column. The lever locks both vertical movement and rotation of the Outer Arm.

3.3.2. Refer to the Installation Instructions 2.6 for the method of adjusting the counterbalancing spring.



WARNING – TIP-OVER HAZARD: NEVER GROUP THREE INSTRUMENT ARMS TOGETHER ON ONE SIDE OF THE STAND. DISTRIBUTE INSTRUMENT WEIGHT AS EQUALLY AS PRACTICAL. AVOID FAST OR FORCEFUL MOVEMENT OF INSTRUMENT ARMS.



AVERTISSEMENT : RISQUE DE BASCULEMENT. NE REGROUPEZ JAMAIS LES TROIS BRAS D'INSTRUMENTS ENSEMBLE SUR UN CÔTÉ DU SUPPORT. DISTRIBUEZ LE POIDS DES INSTRUMENTS AUSSI ÉGALEMENT QUE POSSIBLE. ÉVITEZ UN MOUVEMENT RAPIDE OU VIOLENT DES BRAS D'INSTRUMENTS.

3.4. Overhead Lamp

3.4.1. Movements of the Overhead Lamp arms are controlled by friction and spring-compensated joints, each of which is adjustable. Tighten all three knobs with moderate hand pressure. This will allow you to move the Overhead Lamp easily. The Overhead Lamp should hold its position without repeated knob adjustments. The Overhead Lamp has an ON/OFF switch located at the top of the head, which can be controlled separately from the Instrument Stand.

3.5. Instrument Console/Base Cap

3.5.1. The Instrument Console or Base Cap contains electrical controls for the entire Unit. Refer to Figure 6, 7, and 8 for the location of controls and other parts.

3.5.2. Hand Instrument Wells - Rechargeable Battery Type (Console only)

3.5.2.1. The Rechargeable Battery Well is internally connected to the charging circuit at the factory and will charge Instrument 3.5V NiCd batteries as long as the Instrument handle is fully seated in the well.

3.5.2.2. An indicator light (LED), located below each rechargeable well is supplied as a visual aid for determining that Instrument is properly seated in the well and is recharging.



WARNING: RECHARGEABLE BATTERY WELLS HAVE BEEN TESTED WITH “WELCH ALLYN LI-ION BATTERY HANDLES” AND FOUND TO BE COMPATIBLE. LI-ION BATTERY HANDLES FROM OTHER MANUFACTURERS HAVE NOT BEEN TESTED AND CANNOT BE RECOMMENDED AT THIS TIME.



AVERTISSEMENT : LES COMPARTIMENTS POUR BATTERIE RECHARGEABLE ONT ÉTÉ TESTÉS AVEC LES « MANETTES DE BATTERIE LITHIUM ION WELCH ALLYN » ET ONT ÉTÉ DÉCLARÉS COMPATIBLES. LES MANETTES DE BATTERIE LITHIUM ION D'AUTRES FABRICANTS N'ONT PAS ÉTÉ TESTÉES ET NE PEUVENT PAS ÊTRE RECOMMANDÉES EN CE MOMENT.



NOTE: “Welch Allyn offers an adapter that allows their Li-Ion Handles to operate correctly with Reliance® Rechargeable Battery Wells. Contact your Authorized Reliance® Distributor or Welch Allyn for details.”



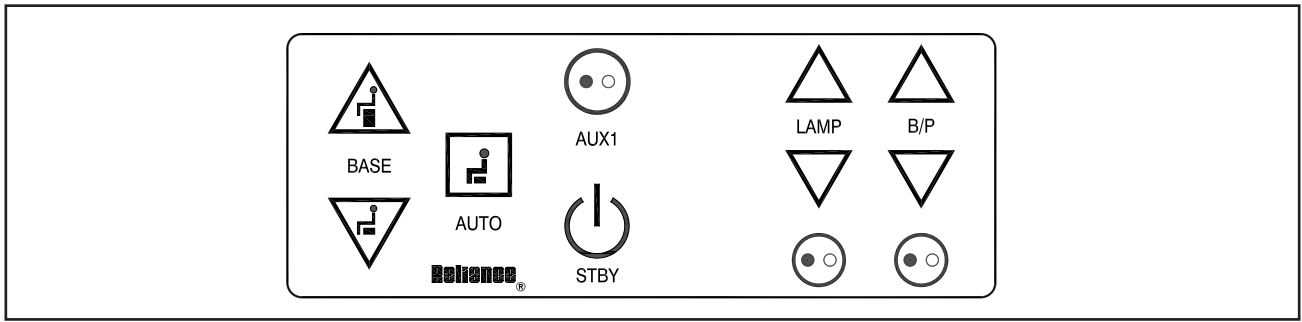
REMARQUE : Welch Allyn offre un adaptateur qui permet à leurs manettes lithium ion de fonctionner correctement avec les compartiments de batterie rechargeable Reliance®. Contactez votre distributeur autorisé Reliance® ou Welch Allyn pour plus de détails.



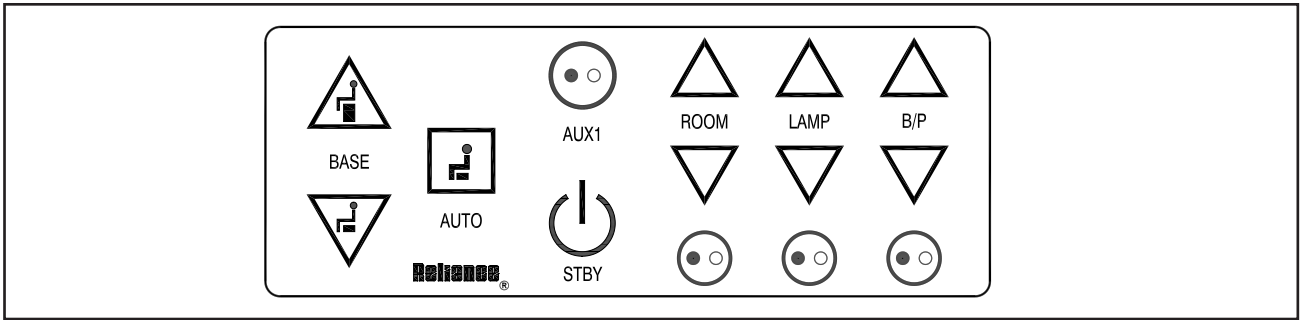
CAUTION-The lamp inside the Rechargeable Instrument must be turned off before inserting the Handle into the Well. Handles will charge continuously as long as the power supply cord is attached to the equipment.



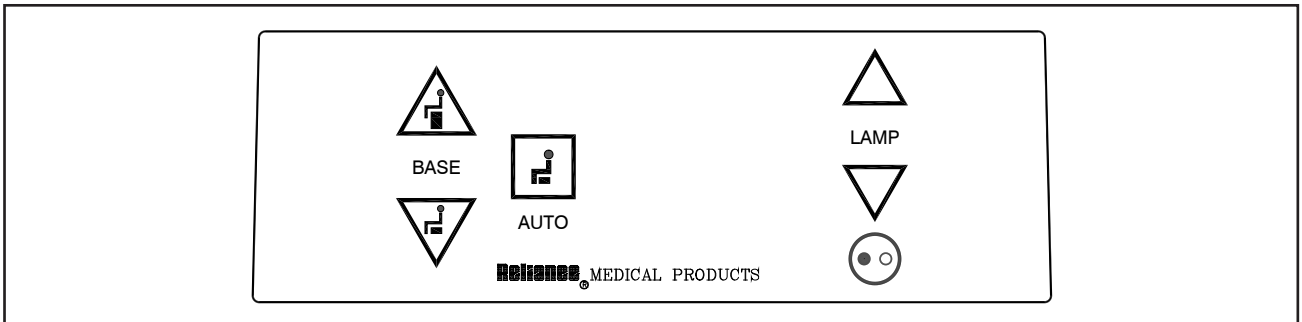
PRÉCAUTION : La lampe à l'intérieur de l'instrument rechargeable doit être désactivée avant d'insérer la manette dans le compartiment. Les manettes se chargeront continuellement aussi longtemps que le cordon d'alimentation est fixé à l'équipement.



**FIGURE 8
CONSOLE FRONT PANEL WITHOUT INFRARED**



**FIGURE 9
CONSOLE FRONT PANEL WITH INFRARED**




**FIGURE 10
BASE CAP FRONT PANEL**

3.6. Front Panel Controls

3.6.1. The controls for the Stand are located on the panel above the Instrument Wells. Refer to Figures 6, 7 and 8 for identification of the various controls.

3.6.1.1. Standby Switch (STBY)

- Turns secondary power ON and OFF to the system.
- Turns the STBY, BASE, and AUTO LED's ON.
- Applies MAIN power to the S/L ARM and AUX power connectors if on.
- Disables all system functions, except charging of the Instrument Wells when in the OFF position.

 **WARNING- MAIN POWER (120VAC OR 230VAC) IS ALWAYS PRESENT INSIDE THE SYSTEM WHEN THE POWER CORD IS PLUGGED INTO THE WALL.**



AVERTISSEMENT : L'ALIMENTATION ÉLECTRIQUE PRINCIPALE (120 VCA OU 230 VCA) EST TOUJOURS PRÉSENTE À L'INTÉRIEUR DU SYSTÈME LORSQUE LE CORDON D'ALIMENTATION EST BRANCHÉ AU MUR.

3.6.1.2. Auxiliary Switch (AUX1)

- Turns MAIN power ON and OFF to the PROJ power connector.
- Turns the AUX LED ON when MAIN power is applied to the PROJ power connector.
- The primary purpose of the switch is to turn the projector ON and OFF.



WARNING- THE MAIN OUTLET LOCATED ON THE BACK OF THE CONSOLE OR BASE CAP MARKED "PROJ" IS INTENDED TO SUPPLY POWER TO A PROJECTOR OR SIMILAR MEDICAL DEVICE COMPLYING WITH IEC 60601-1. ONCE CONNECTED, RESULTING LEAKAGE CURRENTS MUST COMPLY WITH IEC 60601-1-1 FOR MEDICAL ELECTRICAL (ME) SYSTEMS. DO NOT CONNECT UNAUTHORIZED DEVICES.



AVERTISSEMENT : LA PRISE DE COURANT SITUÉE À L'ARRIÈRE DE LA CONSOLE OU DU COUVERCLE DE LA BASE MARQUÉE « PROJ » EST CONÇUE POUR FOURNIR L'ALIMENTATION À UN PROJECTEUR OU AUTRE APPAREIL MÉDICAL SIMILAIRE CONFORME AVEC IEC 60601-1. UNE FOIS L'APPAREIL CONNECTÉ, LES COURANTS DE FUITE RÉSULTANTS DOIVENT ÊTRE CONFORMES À IEC 60601-1-1 POUR LES SYSTÈMES ÉLECTRIQUES MÉDICAUX. NE CONNECTEZ PAS DE DISPOSITIFS NON AUTORISÉS.

3.6.1.3. Room Switch (ROOM)

- Dual-Zone turns the ROOM Lights OFF or ON to a pre-programmed intensity.
- Single-Zone turn ROOM Lights OFF or full ON.

3.6.1.4. Room Down Switch

- Decreases the intensity of the ALL room light(s).

3.6.1.5. Room Up Switch

- Increases the intensity of the ALL room lights(s).

3.6.1.6. Lamp Switch (LAMP)

- Turns the Overhead Lamp ON and OFF.
- Turns the lamp ON at 50% intensity when the switch is pressed for the first time after the system's power cord is plugged into the wall. Afterwards, the light will turn ON at its previous intensity level..
- Turns the LAMP LED ON when power is applied to the Overhead Lamp.

3.6.1.7. Lamp Down Switch

- Decreases the intensity of the Overhead Lamp.

3.6.1.8. Lamp Up Switch

- Increases the intensity of the Overhead Lamp.

3.6.1.9. Binding Post Switch (B/P)

- The B/P Switch is enabled when Switch 5 of SW2 is turned OFF. See Table 1.
- When enabled, turns power to the binding Posts (Indirect Ophthalmoscope) ON and OFF.
- Turns the B/P LED ON when power is applied to the

Ophthalmoscope.

- When disabled, the B/P Switch has no function. Power to the Ophthalmoscope is controlled by the optional Indirect Hanger Assembly.

3.6.1.10. B/P Down Switch

- Decreases the intensity of the Indirect Ophthalmoscope.

3.6.1.11. B/P Up Switch

- Increases the intensity of the Indirect Ophthalmoscope.

3.6.1.12. Chair Base Up Switch

- Causes the Chair Base to raise.

3.6.1.13. Chair Base Down Switch

- Causes the Chair Base to lower

3.6.1.14. Auto Switch

- On a low voltage 980, 7000, 710 or FX920 Chair, this switch causes the Chair Base to lower to its lowest position and the Chair Top to move to its full upright position.

Hanger Switch

- Affects the room lights and is programmable.
- See Switch 4 on Switchpack #2 in Section 2.4, Configuring the System of this manual for details.
- See section 3.8.3 for Programming Instructions.

Slit Lamp Switch

- Affects the room lights and is programmable.
- See section 3.8.3 for Programming Instructions.
- See Switch 6 on Switchpack #1 in the Programming Instructions Section of this manual for details.
- Push button at the beginning of Slit Lamp examination, then push button again after examination is complete.

Well #1

- Controls room light(s) when the rechargeable instrument is removed from well.
- When the instrument is returned to the well, the room lights return to Scene #1. See section 3.8.3 for Programming Instructions.
- See Switch 2 on Switchpack #1.

Well #2

- Controls room light(s) when the rechargeable instrument is removed from the well.
- When the instrument is returned to the well, the room lights return to Scene #1. See section 3.8.3 for Programming Instructions.
- See Switch 3 on Switchpack #1.

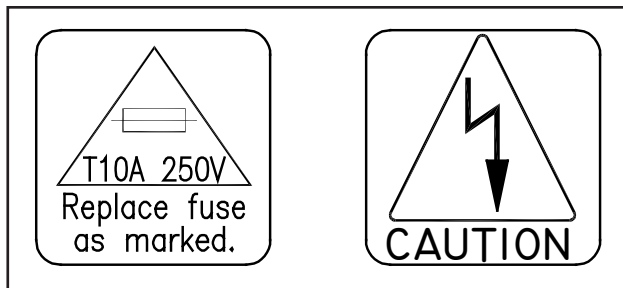
Well #3

- Controls room light(s) when the rechargeable instrument is removed from the well.
- When the instrument is returned to the well, the room lights return to Scene #1. See section 3.8.3 for Programming Instructions.
- See Switch 4 on Switchpack #1.
- On a low voltage 520, 522, 6200 or FXM920 Chair, this switch causes the Chair Base to lower to its lowest position.

CAUTION- The chair will continue to move after this switch is released. To STOP chair movement, press this switch a second time or press the STOP switch located on the side of the chair back.

PRÉCAUTION : La chaise continue de se déplacer après que cet interrupteur est relâché. Pour ARRÊTER le mouvement de la chaise, appuyez sur cet interrupteur une deuxième fois ou appuyez sur l'interrupteur STOP (ARRÊT) situé sur le côté du dossier de la chaise.

3.7. Fuses



WARNING: DISCONNECT EQUIPMENT FROM MAIN INPUT POWER BEFORE PROCEEDING WITH ELECTRICAL INSPECTIONS OR MAINTENANCE.

AVERTISSEMENT : DÉCONNECTEZ L'ÉQUIPEMENT DE L'ALIMENTATION ÉLECTRIQUE PRINCIPALE AVANT DE PROCÉDER À DES INSPECTIONS ÉLECTRIQUES OU À DE L'ENTRETIEN.

CAUTION: Replace fuse(s) as marked. All fuses must be replaced with a fuse of the same size and rating. Refer to the Wire Diagrams at the end of this Manual.

PRÉCAUTION : Remplacez le(s) fusible(s) comme indiqué. Tous les fusibles doivent être remplacés par un fusible de la même dimension et de la même valeur. Se référer aux schémas de câblage à la fin de ce manuel.

3.7.1. Floor Units contain two fuses located inside the AC Input Module on the Outlet Plate Assembly.

3.7.2. Console and Base Cap contain no additional fuses.

3.7.3. **Fuse Replacement (AC Input Module)** Unplug the power cord from the Floor Unit. With a tool similar to a small common screwdriver, unsnap the locking tab on the bottom of the Fuse Drawer. Remove and examine the fuses. Replace as necessary. See Figure 9.

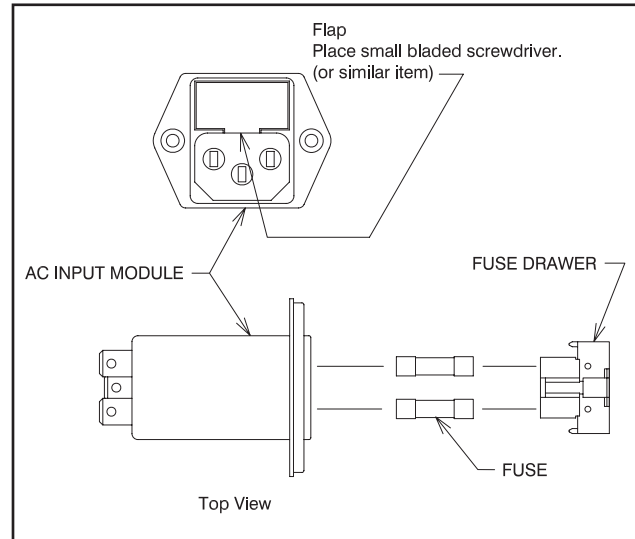


FIGURE 11

Method for removing Fuse Drawer:

1. The Fuse Drawer is located above the power cord.
2. Remove the Power Cord.
3. Place a small bladed screwdriver behind flap and pry out. The Fuse Drawer will come forward slightly.

CAUTION: To avoid a bind of the Fuse Drawer within the AC Input Module, never install the Fuse Drawer into the AC Input Module without fuses.

PRÉCAUTION : Pour éviter que le tiroir à fusible reste bloqué dans le module d'entrée CA, n'installez jamais le tiroir à fusible à l'intérieur du module d'entrée CA sans fusibles.

3.8. Eclipse® Infra-red (IR) 3 Zone Room Light Control System

The Eclipse® IR Room Light Control System (Eclipse® System) is an option on the Instrument Stand and is available with a Console or Base Cap. The Eclipse® System allows you to control the exam room's incandescent and/or florescent lights, and some LED lighting, directly from the Instrument Stand. In most cases, the Instrument Stand changes room lights "automatically" and to the intensity you have chosen for the exam you are about to perform.

The Eclipse® System adds two major components to your Instrument Stand: an IR Transmitter and an IR Receiver. The IR Transmitter snaps onto the top of the Instrument Stand's Support Pole. It sends IR signals to the IR Receiver, just like your TV's Remote Control Unit sends IR signals to your TV. The IR Transmitter should be pointed at the IR Receiver.

The IR Receiver mounts inside the exam room on the wall. Refer to the IR Receiver in Figure 15.



FIGURE 12

3.8.1. Three Zone System

3.8.1.1 A Zone refers to a bank of lights controlled by one room light switch. For example a room with a group of canned lights controlled by one switch and fluorescent controlled by another switch has two lighting zones.

- Each zone has a dedicated raise and lower button to adjust the zone.
- Each zone has a dedicated 7-LED bar graph for level status. Percentage of light level and energy saved is displayed on the info screen.
- All zone information has blue backlit LEDs. Backlight turns off when idle for 30 seconds.

3.8.2. Scenes

3.8.2.1 A Scene simply refers to the intensity of the room lights that has been pre-programmed into the Single or Dual-Zone IR Receiver. When the IR Transmitter sends a signal to the IR Receiver, that signal tells the IR Receiver which Scene to adjust the room lights to. Goto http://www.lutron.com/TechnicalDocumentLibrary/QSGRJ-xP_QSGR-xP_English_Install.pdf for Installation and Operation Instructions.



CAUTION- Li-Ion Battery Handles will cause unintended operation of the room lights when room lights are controlled by

the Eclipse® Room Light Control System. Contact Technical Service for further assistance.



PRÉCAUTION : Les manettes de batterie lithium ion causeront un fonctionnement non désiré de l'éclairage de la pièce lorsque celui-ci est commandé par le système de commande d'éclairage de pièce Eclipse®. Contactez le service technique pour une assistance supplémentaire.

3.8.3. Configuring the Instrument Stand to Automatically Control Room Lights

When the user wants to turn on some function of the Instrument Stand, for example, turn the Slit Lamp or AUX1 Switch On, remove the Indirect Ophthalmoscope from the Hanger, or remove a battery-operated Instrument from a Charging Well, they typically intend to perform a specific examination upon the patient. The Eclipse® System allows the user to program the room lights to an intensity level that is suitable for that examination. When the Eclipse® System is used with a Console, the user can individually select which of the nine functions will control room lights by setting switches located on the circuit board. On the Base Cap, only two switches control room lights. These switches always send IR signals to the IR Receiver and this functionality cannot be disabled by switches on the circuit board.

3.8.3.1. Console: Configuring Dip Switches on the Circuit Board (SW1)

- To avoid any chance of an electrical shock, disconnect the Instrument Stand's power cord from the wall outlet.
- Review Table 3. If you want one of the listed switches to automatically control room lights during an exam, turn the corresponding switch On. Otherwise, turn the switch Off. The Factory Default setting is Off.
- Reconnect the Instrument Stand to power.

SWITCHPACK #1 (SW1)

Switch 1

- Turn Switch 1 OFF if your system contains a Single-Zone Infrared Receiver.
- Turn Switch 1 ON if your system contains a Three-zone infrared receiver (Factory default setting).

Switch 2

- Turn Switch 2 ON to enable Well #1 to affect room lights.
- Turn Switch 2 OFF to disable Well #1 from affecting room lights.

Switch 3

- Turn Switch 3 ON to enable Well #2 to affect room lights.
- Turn Switch 3 OFF to disable Well #2 from affecting room lights.

ECLIPSE® ROOM LIGHT SYSTEM

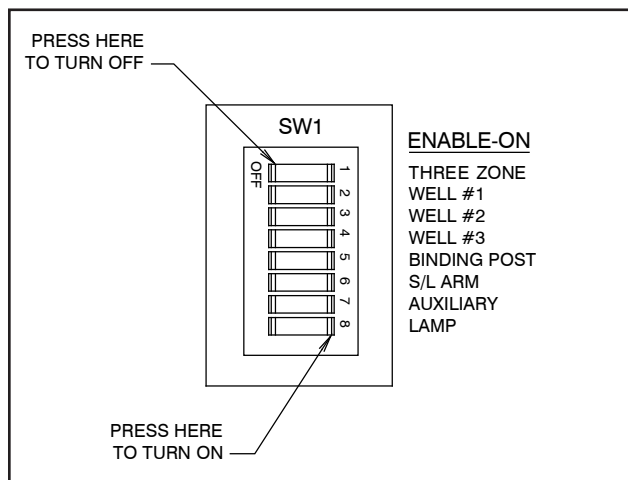


FIGURE 13

TABLE 3
REAR VIEW OF CONSOLE ASSEMBLY

Switch 4

- Turn Switch 4 ON to enable Well #3 to affect room lights.
- Turn Switch 4 OFF to disable Well #3 from affecting room lights.

Switch 5

- If power to the Indirect Ophthalmoscope is controlled by the B/P Switch on the front panel, turn Switch 5 ON if you want the B/P Switch to affect room lights.
- Turn Switch 5 OFF if you do not want the B/P Switch to affect room lights.

Switch 6

- Turn Switch 6 ON to enable Slit Lamp Arm Switch to affect room lights.
- Turn Switch 6 OFF to disable Slit Lamp Arm Switch from affecting room lights.

Switch 7

- Turn Switch 7 ON to enable the AUX1 Switch to affect room lights.
- Turn Switch 7 OFF to disable the AUX1 Switch from affecting room lights.

Switch 8

- Turn Switch 8 ON to enable the LAMP Switch to affect room lights.
- Turn Switch 8 OFF to disable the LAMP Switch from affecting room lights.

3.8.3.2. Base Cap: Configuring the Base Cap Software (The Base Cap Circuit Board does not contain Dip Switches.)

The Base Cap controls just two IR functions:

- the Room Lights Switch on the Slit Lamp Arm, and

- the Hanger Switch

These functions are always enabled and cannot be disabled by Dip Switches or software. However, you still need to configure the Base Cap to communicate with Single or Three-Zone IR Receiver. The Factory Default Setting is the Three-Zone IR Receiver. The following programming sequence is not required if a Three-Zone IR Receiver has been installed in your examination room.

To configure the Base Cap:

- Turn Off the Overhead Lamp.
- Press and hold the Overhead Lamp Up Switch for five (5) seconds.
- If a short 0.2-second beep is heard, the Base Cap has been configured for a Single-Zone IR Receiver.
- If a long 1-second beep is heard, the Base Cap has been configured for a Three-Zone IR Receiver.
- Simply press and hold the Lamp Up Switch for five (5) seconds to toggle between the Single or Three-Zone IR Receiver.



****NOTE:** When using a Base Cap, only these two switches** control room lights. These switches always send IR signals to the IR Receiver and this functionality cannot be disabled.



****REMARQUE :** Lorsqu'un couvercle est utilisé, seulement ces deux interrupteurs** contrôlent l'éclairage de la pièce. Ces interrupteurs envoient des signaux IR au récepteur IR et cette fonctionnalité ne peut pas être désactivée.

3.8.3.3. Entering and Exiting Programming Mode Three-Zone IR Receiver

After your IR Receiver has been installed, only a few steps are required to enable your Instrument Stand to control room lights. In this example, let's assume you want to dim the room lights when performing an examination using the Slit Lamp. In this case, a switch has been provided on the Slit Lamp Arm for controlling room lights during a Slit Lamp exam.

3.8.3.4. Entering Programming Mode

Press and hold the top and bottom scene buttons simultaneously for 3 seconds. The LEDs in the scene buttons will scroll from top to bottom, confirming that you are in programming mode, and the info screen will display the main menu.

3.8.3.5. Exiting Programming Mode

Press and hold the top and bottom scene buttons simultaneously for 3 seconds. The info screen will go to Scene 1.

3.8.3.6. Navigating Menus in Programming Mode

3.8.3.7. Master Buttons

The Master buttons allow you to move through the menu choices. The current choice is highlighted on the info screen.

3.8.3.8. OK Button

The OK button chooses the current highlighted menu choice. This will either take you to the next menu or accept a setting you have selected. When the screen displays a Yes/No question, the OK button is “Yes”.

3.8.3.9. Timeclock Button

The Timeclock button functions as a “back” button during programming mode. Pressing the Timeclock button takes you back one step in the current menu. Pressing it repeatedly will eventually return you to the main menu, but will not exit programming mode. When the screen displays a Yes/No question, the Timeclock button is “No”..

3.8.3.10. Zone Setup

3.8.3.11. Assigning Load Types

1. Enter programming mode.
2. Use the Master buttons to highlight “Zone setup” and press the OK button to accept.
3. Use the Master buttons to highlight “Load type”. Press the OK button to accept. See “Setting Load Types” table on the next page.
4. Use the zone raise/lower buttons to choose the load type for that zone. See the list on the next page for supported load types. Press the OK button to accept.
5. The info screen will confirm that your load type has been saved.
6. Exit programming mode.

3.8.3.12. Assigning Non-Dim Load Types

Zones assigned to non-dim loads have three available configurations:

- LOFO: Last On, First Off
- FOFO: First On, First Off
- FOLO: First On, Last Off
- LOLO: Last On, Last Off
- 60/40: On at 60%, off at 40%

In scenes including dim and non-dim load types, if set up as “First” On/Off, non-dim loads will toggle before dim loads; if set up as “Last” On/Off, dim loads will toggle before non-dim loads.

1. Enter programming mode.
2. Use the Master buttons to highlight “Zone setup” and press the OK button to accept.
3. Use the Master buttons to highlight “Non-Dim Load type”. Press the OK button to accept. See “Setting Load Types” table on the next page.
4. Use the zone raise/lower buttons to choose the non

dim load type for that zone. (Zones not programmed as non-dim will be displayed as Unaffected.) Press the OK button to accept.

5. The info screen will confirm that your load type has been saved.
6. Exit programming mode.

3.8.3.13. Scene Setup

3.8.3.14. Setting Zone Levels, Fade Rates, and Shade Group Actions

1. Enter programming mode.
2. Use the Master buttons to highlight “Scene setup” and press the OK button to accept.
3. Use the Master buttons to highlight “Levels” to adjust lighting and/ or shade levels. Press the OK button to accept. Use the Master buttons to highlight the scene number of your desired scene. Press the OK button to accept.
4. Set each zone to the desired light level for this scene using the zone raise/lower buttons. The info screen will display the zone and percentage as you adjust it. To set a zone as unaffected, lower the light levels all the way to off, then hold the zone lower button for 3 seconds. The screen will display “–” and the three middle LEDs for the zone will be lit to indicate this zone is unaffected by the scene (the zone will not change when this scene is initiated). When all zones are at the desired level, press the OK button to accept.
5. Use the Master buttons to set the fade time for this scene. Press the OK button to accept.
6. Note: This step is applicable only if you have shades on your system. If you do not have or do not wish to set shade groups for this scene, press the OK button to skip this step. Set each shade group to the desired level for this scene. When all shade groups are at the desired level, press the OK button to accept.

For shade programming, see the full installation and operation guide at www.lutron.com/qs.

7. The info screen will confirm that your scene has been saved.
8. Exit programming mode.

3.8.3.15. Pico Wireless Control Setup

1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled”.
2. On the Pico wireless control, press and hold the top (on) and bottom (off) buttons for 3 seconds. The info screen on the GRAFIK Eye QS control unit will display the Pico wireless control options. Press the OK button on the GRAFIK Eye QS control unit to select the desired operation type for the Pico wireless control.
3. Assign the Pico wireless control
 - a. To assign the Pico wireless control as a zone controller, use the Master buttons to select “Zone” and press the OK button to accept. Use the zone raise/

lower buttons for a zone to select a desired preset level, and then press the zone raise and lower buttons simultaneously for 1 second (until the zone LEDs flash at the programmed preset level). Repeat for all zones you wish to control with the Pico wireless control.

OR

b. To assign the Pico wireless control as a scene controller, use the Master buttons to select "Scene" and press the OK button to accept. Press and hold the top scene button on the GRAFIK Eye QS control unit for 3 seconds (until the scene LEDs flash).

4. On the Pico wireless control, press and hold the top and bottom buttons for 3 seconds until the LEDs on the GRAFIK Eye QS control unit stop flashing.

NOTE: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.

REMARQUE : Le signal sans fil a une portée de 9 m (30 Ft) par construction standard ou de 18 m (60 Ft)

NOTE: A Fade Rate can also be programmed for each Scene. This is done at the IR Receiver. Refer to the Installer's Guide provided with your IR Receiver.

REMARQUE : Un taux de fondu peut aussi être programmé pour chaque Scène. Ceci est effectué au récepteur IR. Se référer au guide de l'installateur fourni avec votre récepteur IR.

****NOTE:** When using a Base Cap, only these two switches** control room lights. These switches always send IR signals to the IR Receiver and this functionality cannot be disabled.

****REMARQUE :** Lorsqu'un couvercle est utilisé, seulement ces deux interrupteurs** contrôlent l'éclairage de la pièce. Ces interrupteurs envoient des signaux IR au récepteur IR et cette fonctionnalité ne peut pas être désactivée.

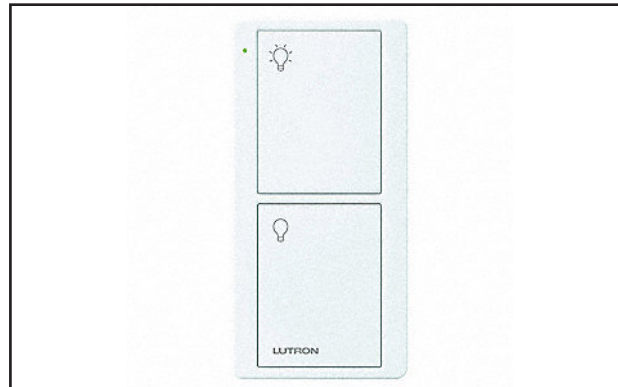
3.8.3.16. IR Receiver Installation Instructions

To install your IR Receiver, refer to the Installer's Guide provided with your IR Receiver. The following diagrams and instructions are copied here for your convenience.

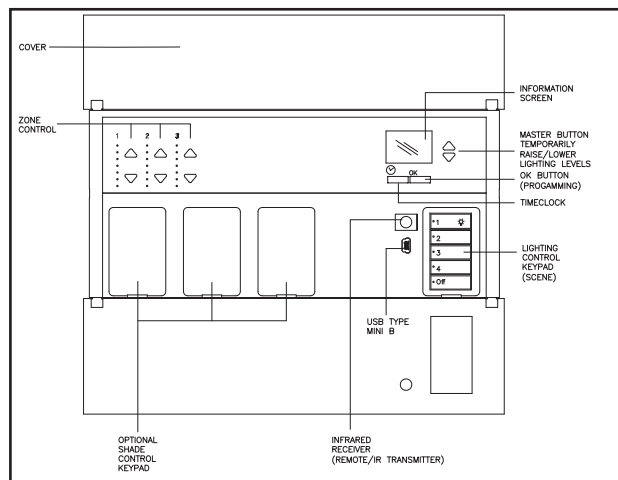
WARNING-YOUR IR RECEIVER MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. IMPROPER WIRING CAN RESULT IN PERSONAL INJURY OR DAMAGE TO YOUR IR RECEIVER OR OTHER EQUIPMENT. AVERTISSEMENT : VOTRE RÉCEPTEUR IF



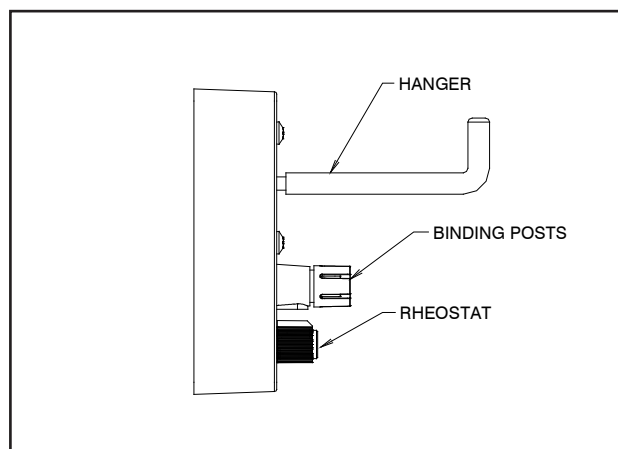
DOIT ÊTRE INSTALLÉ PAR UN ÉLECTRICIEN QUALIFIÉ CONFORMÉMENT À TOUTES LES RÉGLEMENTATIONS APPLICABLES. UN CÂBLAGE INADÉQUAT PEUT CAUSER UNE BLESSURE OU ENDOMMAGER VOTRE RÉCEPTEUR IR OU D'AUTRE ÉQUIPEMENT.



**FIGURE 14
WIRELESS REMOTE CONTROL**



**FIGURE 15
THREE-ZONE RECEIVER**



**FIGURE 16
INDIRECT HANGER SWITCH**

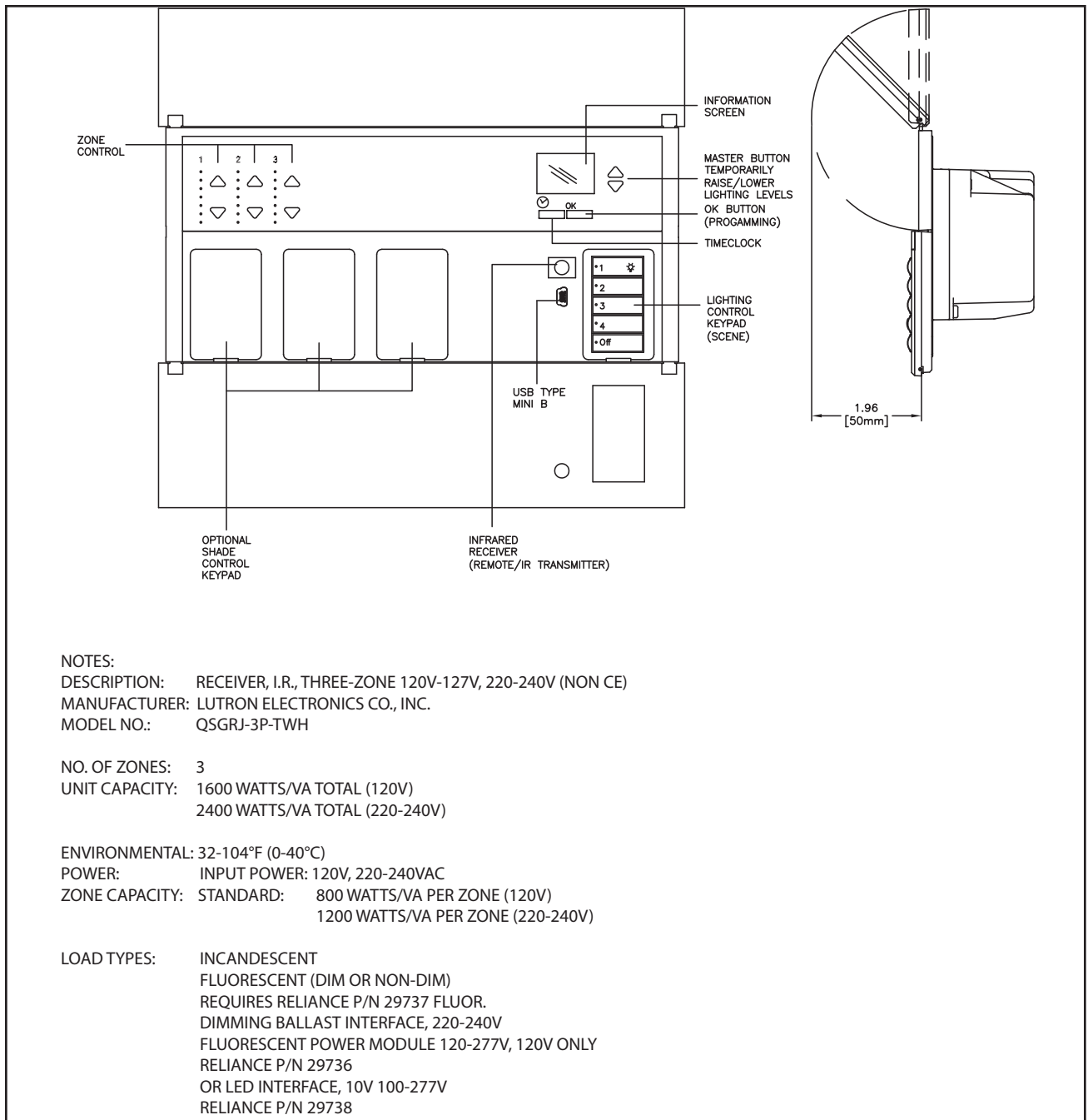


FIGURE 18
THREE-ZONE RECEIVER

P/N 3029099



Note: See the Installer's Guide that came with your IR Receiver.



REMARQUE : Consultez le guide de l'installateur fourni avec votre récepteur IR.

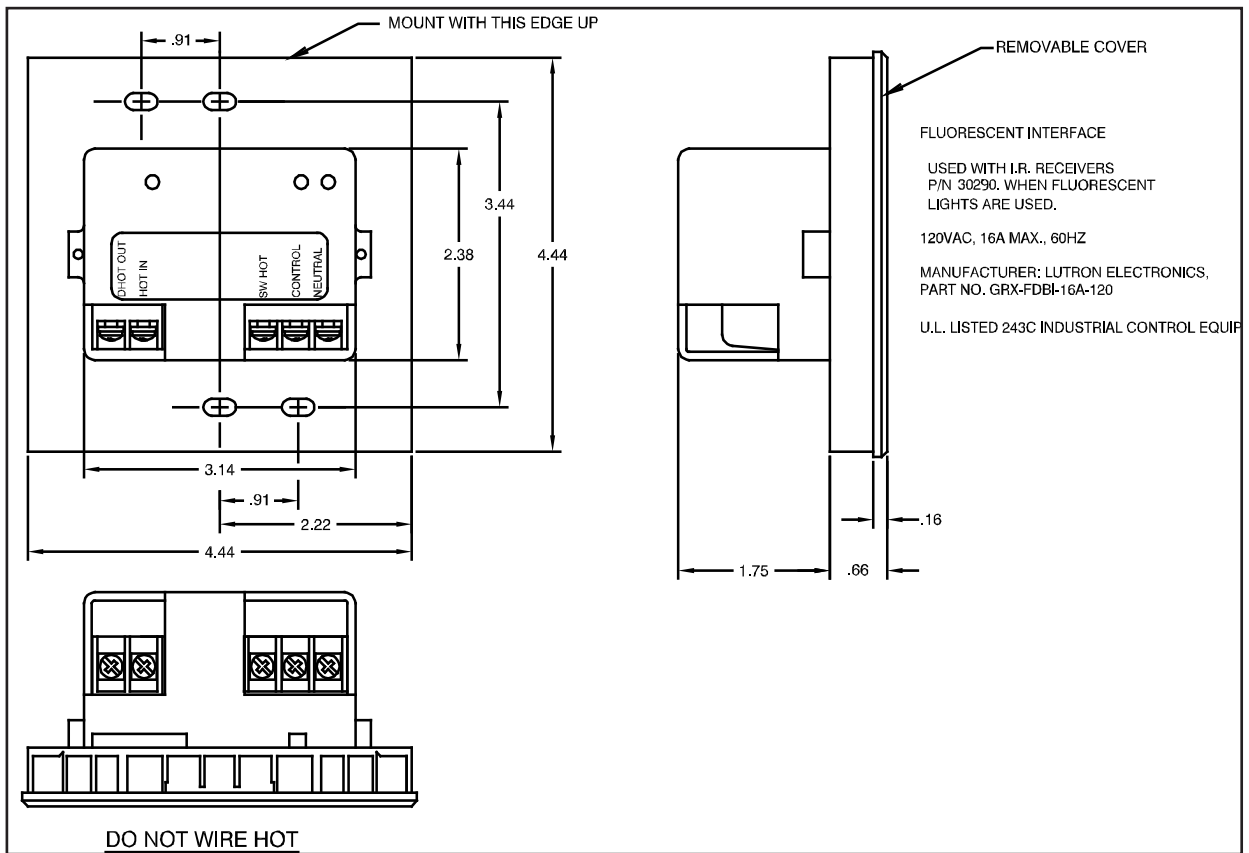


FIGURE 19
FLUORESCENT INTERFACE

P/N 17187

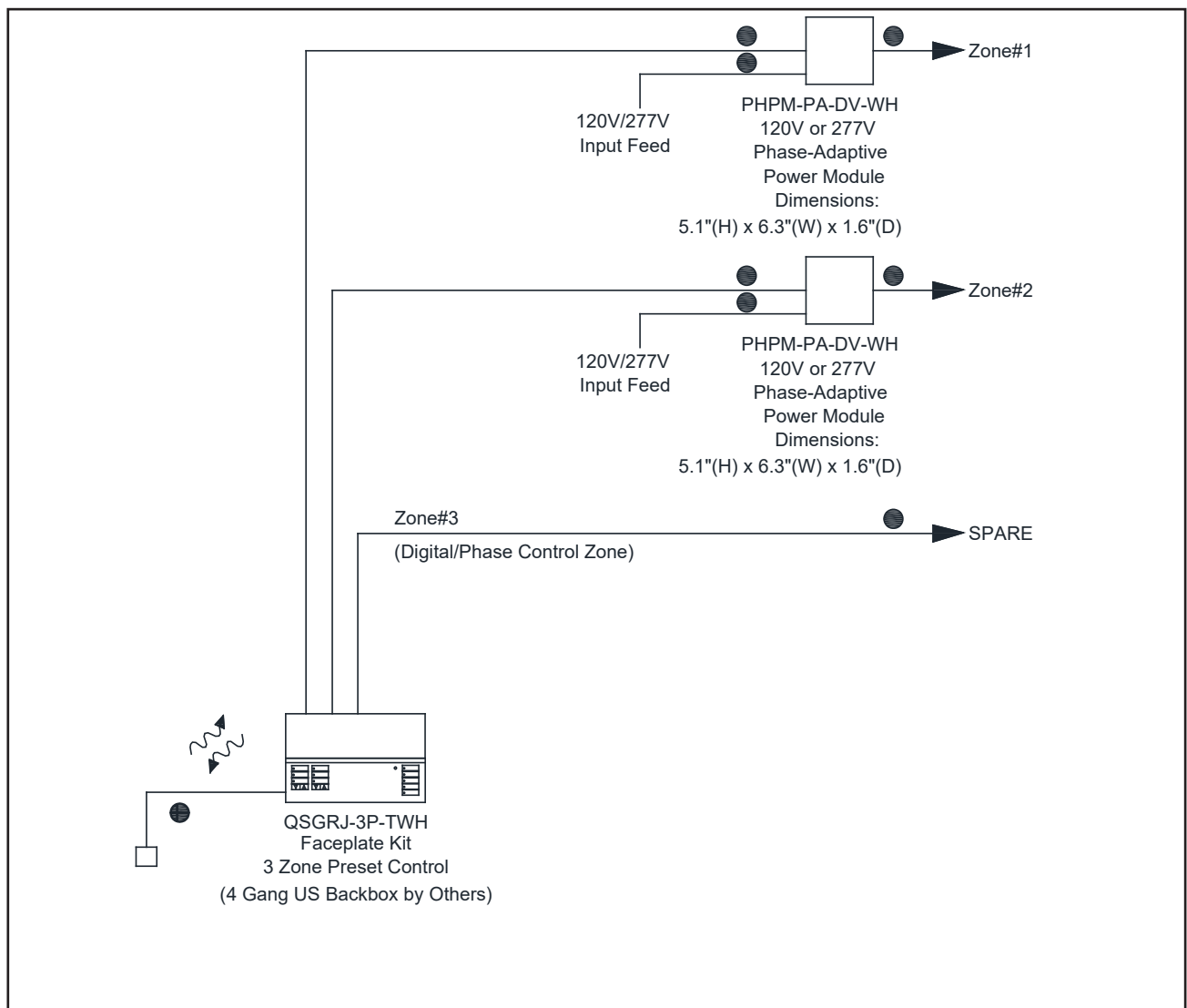


FIGURE 21

**Installation Diagram: Three Zone Fluorescent ON/OFF
120 VAC or 277 VAC**



Note: See the Installer's Guide that came with your IR Receiver.



REMARQUE : Consultez le guide de l'installateur fourni avec votre récepteur IR.

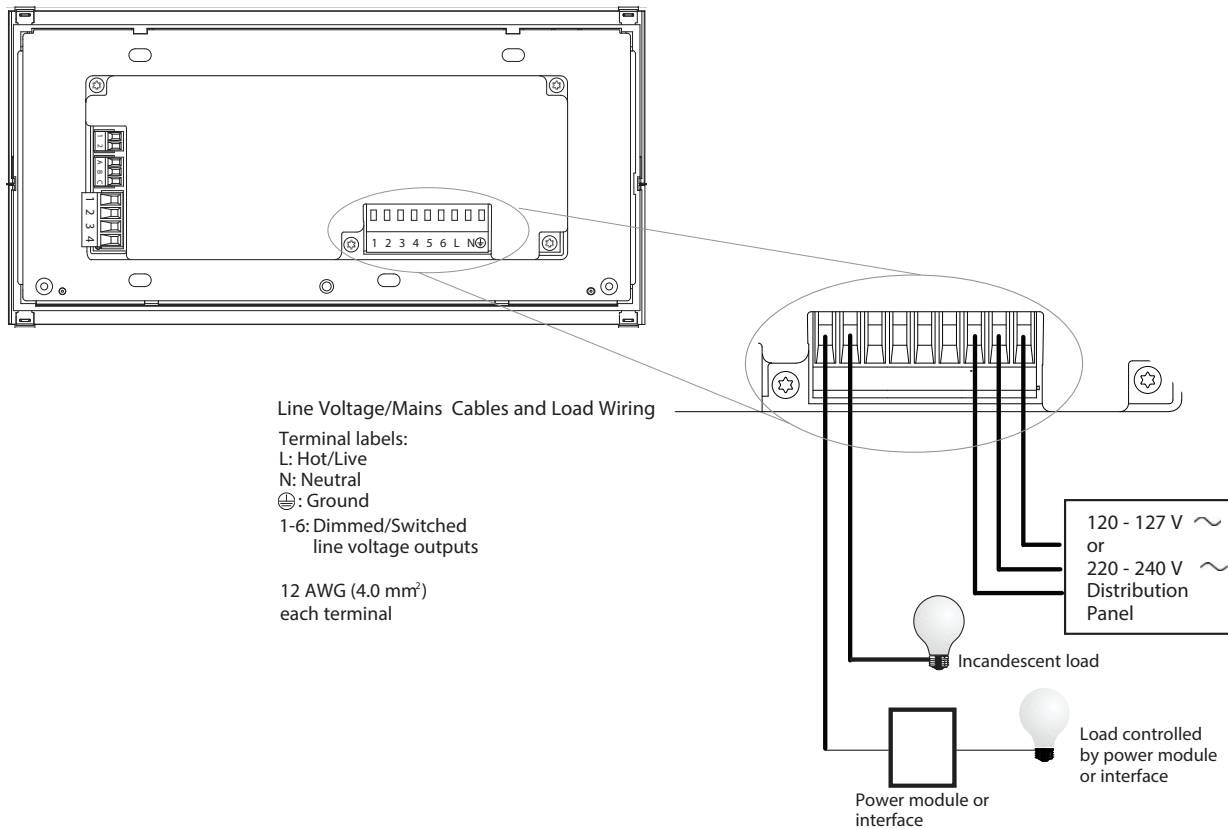
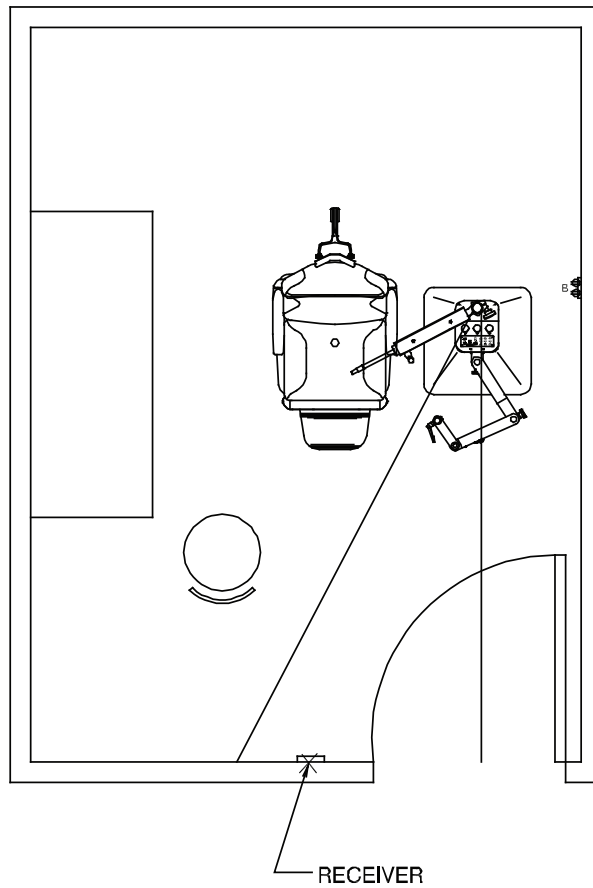


FIGURE 22
INSTALLATION DIAGRAM-THREE ZONE

TROUBLE SHOOTING GUIDE
INSTRUMENT STAND

PROBLEM	PROBLEM CAUSE	SOLUTION
1) UNIT NOT GETTING POWER	A) UNIT NOT PLUGGED INTO OUTLET B) BLOWN FUSE(S) C) BASE CAP OR CONSOLE NOT PLUGGED IN	A) PLUG POWER CORD INTO WALL B) REPLACE FUSE (S) C) PLUG BASE CAP OR CONSOLE INTO BASE
2) CHAIR CONTROLS NOT FUNCTIONING	A) CHAIR CONTROL CABLE NOT CONNECTED TO STAND B) BASE CAP OR CONSOLE NOT CONNECTED TO CONTROL CABLE	A) CONNECT CHAIR CONTROL CABLE TO STAND B) CONNECT BASE CAP OR CONSOLE TO CONTROL CABLE ON TOP OF THE STAND
3) WELLS NOT RECHARGING	A) UNIT NOT PLUGGED INTO OUTLET B) POOR CABLE CONNECTION	A) PLUG POWER CORD INTO WALL B) CONNECT CABLE TO WELL PCB
4) OVERHEAD LAMP NOT FUNCTIONING	A) OVERHEAD LAMP NOT PLUGGED INTO "LAMP" OUTLET	A) PLUG OVERHEAD LAMP INTO "LAMP" OUTLET
5) AUXILIARY ARM NOT RECEIVING POWER	A) AUXILIARY ARM NOT PLUGGED INTO BASE CAP OR CONSOLE	A) PLUG AUXILIARY ARM INTO BASE CAP OR CONSOLE

Should your Instrument Stand not perform properly, contact the Reliance® Distributor, where you purchased this product or contact the Technical Service Department, Reliance® Medical Products, Inc., 3535 Kings Mills Road, Mason, Ohio 45040-2303, or call (800) 735-0358.

ECLISPE® ROOM LIGHT CONTROL SYSTEM

PROBLEM	PROBLEM CAUSE	SOLUTION
1) ROOM LIGHTS NOT RESPONSIVE	A) LED IN TRANSMITTER DOES NOT EMIT RED LIGHT	A) CHECK DIP SWITCHES FOR CORRECT SETTINGS A) INSURE THAT TRANSMITTER IS PROPERLY CONNECTED
	B) LED IN TRANSMITTER DOES EMIT RED LIGHT	B) CHECK PROGRAMMING OF RECEIVER B) CHECK TO INSURE NO OBJECT IS POSITIONED IN FRONT OF TRANSMITTER OR RECEIVER B) INSURE THAT TRANSMITTER IS POINTED IN DIRECTION OF RECEIVER B) IF RECEIVER IS 5' OR LESS AWAY FROM STAND ADJUST POSITION OF TRANSMITTER SO IT IS DIRECTLY IN LINE WITH THE RECEIVER B) IF RECEIVER IS MORE THAN 5' AWAY FROM STAND PLACE THE TRANSMITTER AT TOP OF POLE
2) SLIT LAMP ARM SWITCH DOES NOT EFFECT ROOM LIGHTS	A) UNIT NOT IN PROPER SCENE	A) ACTIVATE SWITCHES ON SLIT LAMP ARM AGAIN
3) ROOM LIGHTS DO NOT RESPOND AS DESIRED	A) RECEIVER NOT PROGRAMMED CORRECTLY	A) REPROGRAM RECEIVER
4) WALL UNIT DOES NOT AFFECT LIGHTS	A) CHECK WIRING	A) CONTACT INSTALLER OF RECEIVER
	B) CHECK RECEIVER	B) EXCHANGE RECEIVER

CLEANING AND MAINTENANCE

Cleaning Painted Surfaces

Painted surfaces are covered with a durable powder coat paint which is resistant to scratching and scuffing. Painted surfaces may be cleaned with a clean cloth dampened with mild, soapy water or equivalent household spray cleaner.

Recommended Infection Control Products

The following Infection Control Products have been tested on the equipment and will not cause damage to painted surfaces or plastic covers:

- Cavicide® Hospital Disinfectant
- Precise® Hospital Foam Cleaner Disinfectant



WARNING: REFER TO LOCAL OR HEALTHCARE PROFESSION GUIDELINES FOR SELECTING EFFECTIVE INFECTION CONTROL PRODUCTS.



AVERTISSEMENT : SE RÉFÉRER AUX DIRECTIVES LOCALES OU DES PROFESSIONS DE LA SANTÉ POUR SÉLECTIONNER DES PRODUITS DE CONTRÔLE D'INFECTION EFFICACES.



CAUTION: Follow manufacturer's directions for concentration and application of disinfecting cleaner. Avoid prolonged application of any disinfectant/cleaner products, because they may cause staining or discoloration of material..



PRÉCAUTION : Suivez les instructions du fabricant pour la concentration et l'application de nettoyeurs désinfectants. Évitez une application prolongée de tout produit désinfectant/nettoyant, parce que ceux-ci pourraient causer des taches ou une décoloration du matériel.



Note: Equipment should be cleaned as needed or per local or healthcare profession guidelines.



REMARQUE : L'équipement devrait être nettoyé au besoin ou selon les directives locales ou celles des professions de la santé.



CAUTION: To avoid environmental hazards when equipment has reached the end of its useful life, dispose of equipment per local regulations.



PRÉCAUTION : Pour éviter les risques environnementaux lorsque l'équipement a atteint la fin de sa vie utile, disposez de l'équipement selon les réglementations locales.



WARNING: TO AVOID BIOLOGICAL HAZARDS WHEN EQUIPMENT HAS REACHED THE END OF ITS USEFUL LIFE, DISPOSE OF EQUIPMENT PER LOCAL REGULATIONS OR HEALTHCARE PROFESSION GUIDELINES.



AVERTISSEMENT : POUR ÉVITER LES RISQUES BIOLOGIQUES LORSQUE L'ÉQUIPEMENT A ATTEINT LA FIN DE SA VIE UTILE, DISPOSEZ DE L'ÉQUIPEMENT SELON LES RÉGLEMENTATIONS LOCALES OU LES DIRECTIVES DES PROFESSIONS DE LA SANTÉ.

PARTS LIST
RELIANCE® MODEL 7900
OPHTHALMIC INSTRUMENT STAND



NOTE: When ordering parts, please:

1. Advise dealer or factory of model and serial number of Unit. These numbers are on the plate that is located at rear, near bottom, of Base Unit.
2. Specify color of painted parts. Painted parts have an asterisk(*) behind the part description.

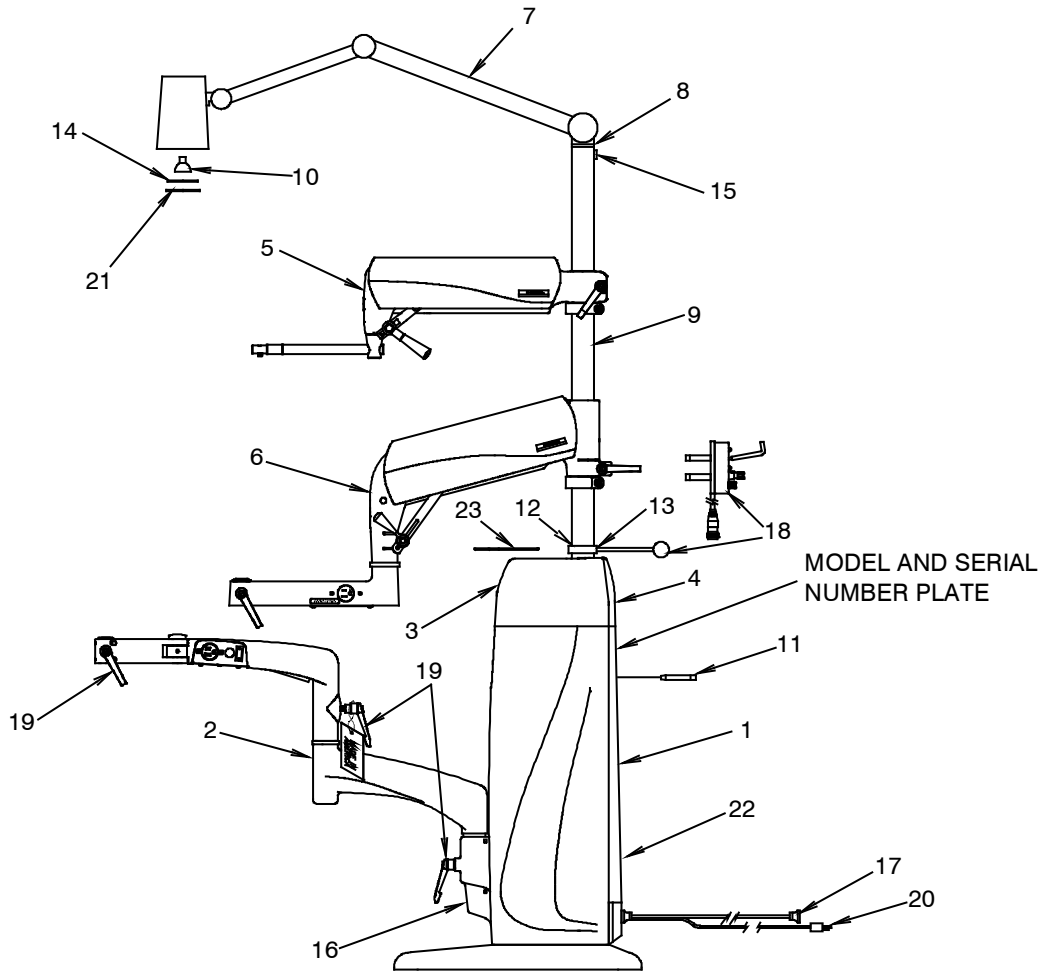


REMARQUE : Lorsque vous commandez des pièces, veuillez :

1. Aviser le marchand ou l'usine du modèle et du numéro de série de l'appareil. Ces numéros se trouvent sur la plaque située en arrière, près du bas de la base.
2. Spécifier la couleur des pièces peintes. Les pièces peintes ont un astérisque (*) derrière la description de pièce.

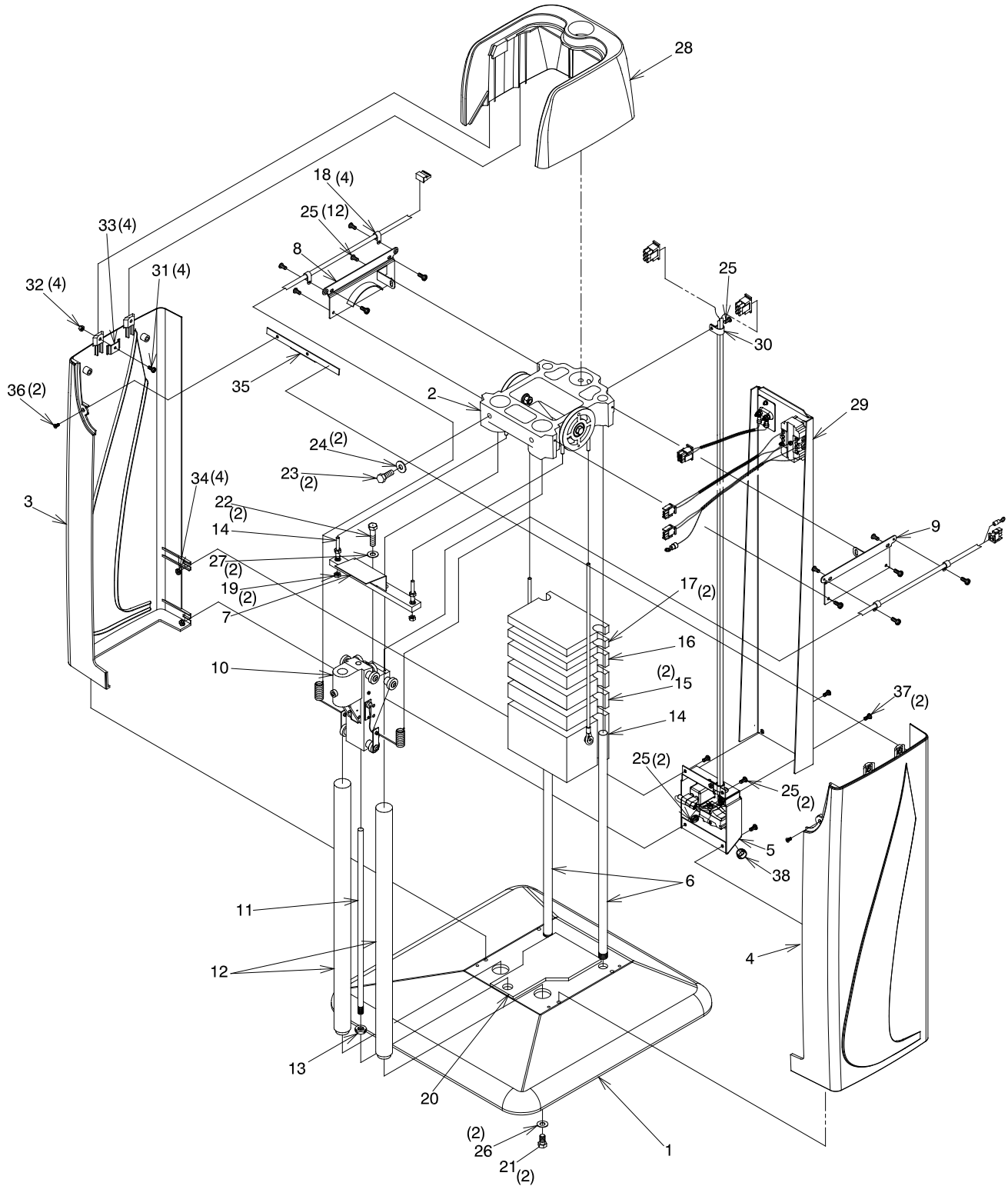
Should your Instrument Stand not perform properly, or if replacement parts are needed, contact the Reliance® Distributor, where you purchased this product or contact the Technical Service Department, Reliance® Medical Products, Inc., 3535 Kings Mills Road, Mason, Ohio 45040-2303, or call (800) 735-0358.

**FIGURE 23
MODEL 7900 INSTRUMENT STAND ASSEMBLY**



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1		Base Assembly* (See Figure 24)	12	0514780	Collar-Chrome
2		Slit Lamp Arm Assembly* (See Figure 28)	13	0722699	Sckt. H.S.S. 1/4 x 1/4
3		Console* (See Instrument Console Section)	14	1677399	Lens
4	2034392	Dual B/P Assembly	15	0715799	Round H.M.S #10 x 1/4
	2034499	Twist Lock Hubbell Receptacle	16	1971599	Lock Cover
	2034503	Cover Plate - P.CT*	17	1550599	Chair Control Cable
	2040103	Indirect Receptacle Assembly	18	1979592	Instrument Hanger Assembly
5	Refractor Arm Assembly* (See Figure 29)	2054092		Indirect Hanger Kit (I.R. Only)	
6		Auxiliary (Third) Arm* (See Figure 30)	19	2035199	Locking Handle
7	525106	Lamp Assembly*	20	1659299	Power Cord Assembly
8	0541680	Snap Plug	21	1677499	Retaining Ring
9	1974599	Support Tube (Shown)	22	1682199	Caution Label
	0537399	Column Stub	23	1969499	Lexan Shelf
10	1569799	Bulb-12vdc, 20w, Type G4	24	1568699	Chair Control Assembly (Not Shown) (used only to connect new stands to old chairs)
11	0503599	Support Pin			

FIGURE 24
BASE ASSEMBLY



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1598603	Base*	20	1974099	Bumper Pad
2	1966892	7900 Top Frame Assembly	21	0709399	Hex H.C.S. 1/2-13 x 3/4
3	1971199	LH Side Panel	22	0708299	Hex H.C.S. 3/8-16 x 3/4
4	1971099	RH Side Panel	23	0707199	Hex H.C.S. 5/16-18 x 1
5		Outlet Plate Assembly*(See Figure 25)	24	0728399	Washer - Lock 5/16 Split
6	0495599	Guide Rod	25	1734799	PHMS #10-32 x 3/8 W/Lock Washer
7	0825584	Lift Bar Assembly	26	0729299	Washer - 1/2
8	1971603	Side Panel Mounting Bracket - LH*	27	0728499	Washer - Lock 3/8 Split
9	1971703	Slide Panel Mounting Bracket - RH*	28	1971292	7900 Top Housing
10		Roller Frame Assembly*(See Figure 24)	29		Back Cover Assembly* (See Figure 26)
11	1225499	Lock Shaft (in Item 10)	30	0591999	Cable Clamp
12	1598799	Support Column	31	2034999	PHMS #8-32 x 3/8 W/Lockwasher
13	2036099	1/2-20 Jam Nut	32	0705399	#8-32 Hex Nut
14	0825392	Weight & Cable Assembly-45 lbs	33	1975099	Side Panel Clamp
15	0548099	Counter Balance Weight - 10 lbs	34	0705599	#10-32 Keps Nut
16	0548199	Counter Balance Weight - 7.5 lbs	35	1976399	Face Plate - Mount Bar
17	0548299	Counter Balance Weight - 5 lbs	36	0821699	FHMS #8-32 x 3/8
18	0513199	Cable Clamp	37	2035099	THMS #10-32 x 3/8
19	0508599	3/8-16 Lock Nut	38	1282699	.625 Nylon Hole Plug

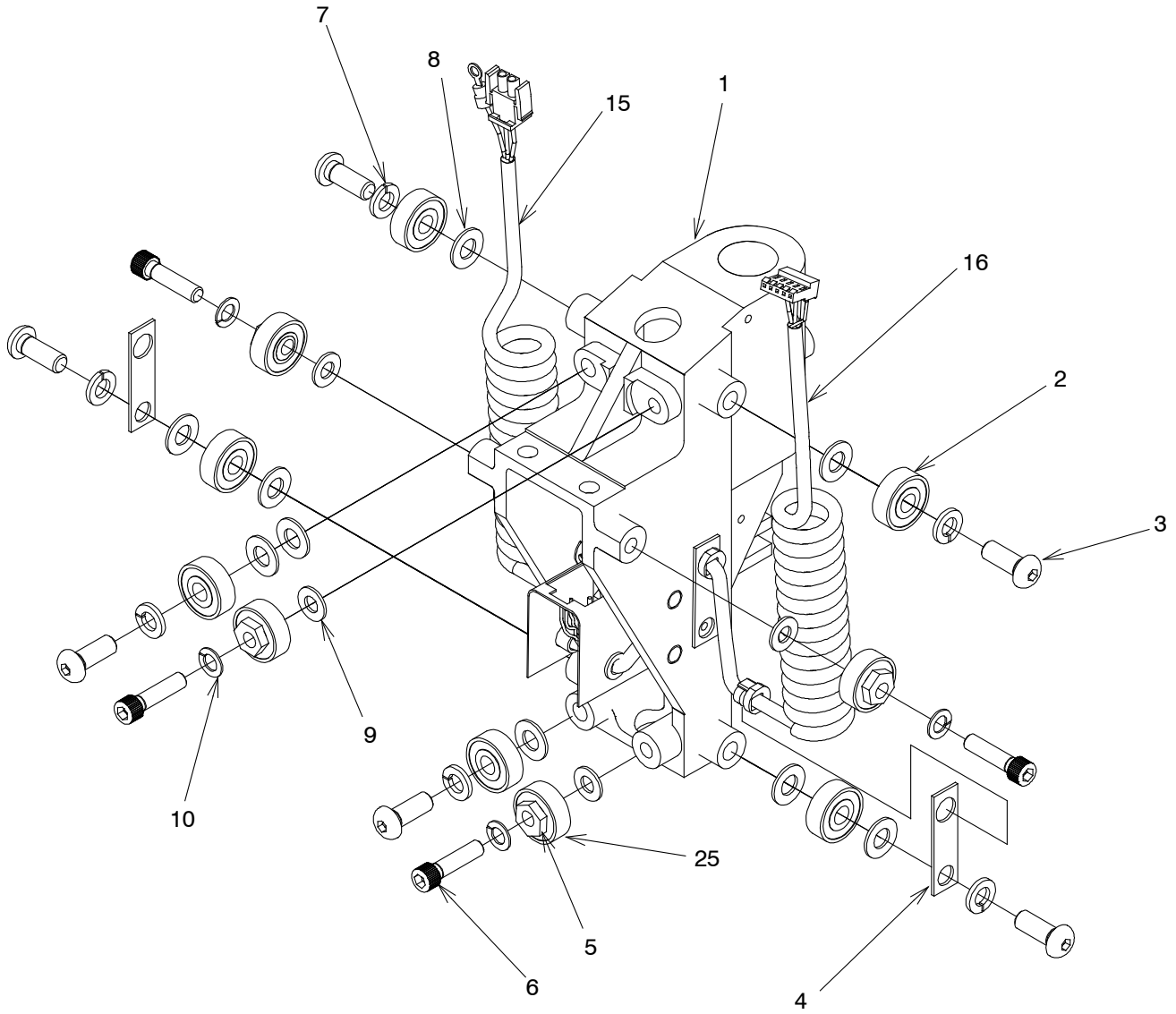
To order complete Base Assembly use P/N's.

1967692 7900 Base Assembly- 120V*

1967792 7900 Base Assembly- 230V*

*Please specify paint color when ordering.

FIGURE 25
ROLLER FRAME ASSEMBLY

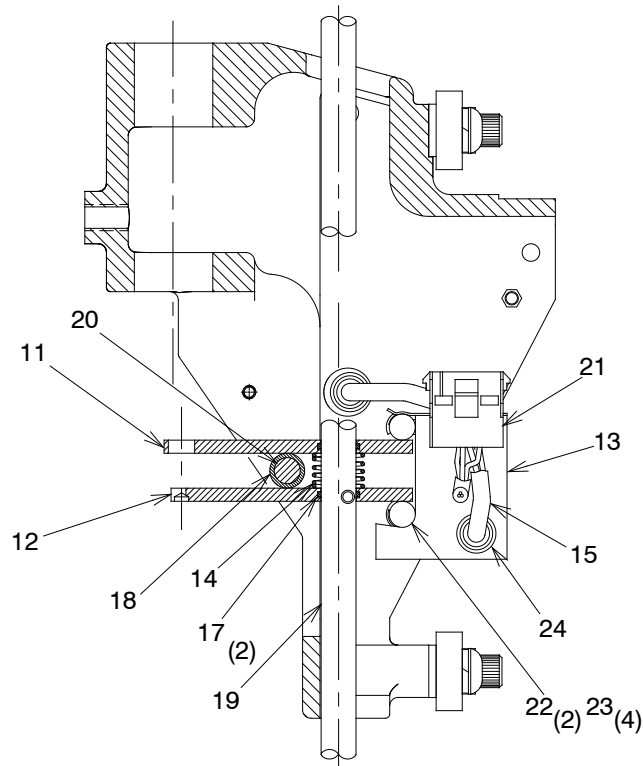


To order complete Roller Frame Assembly use P/N.

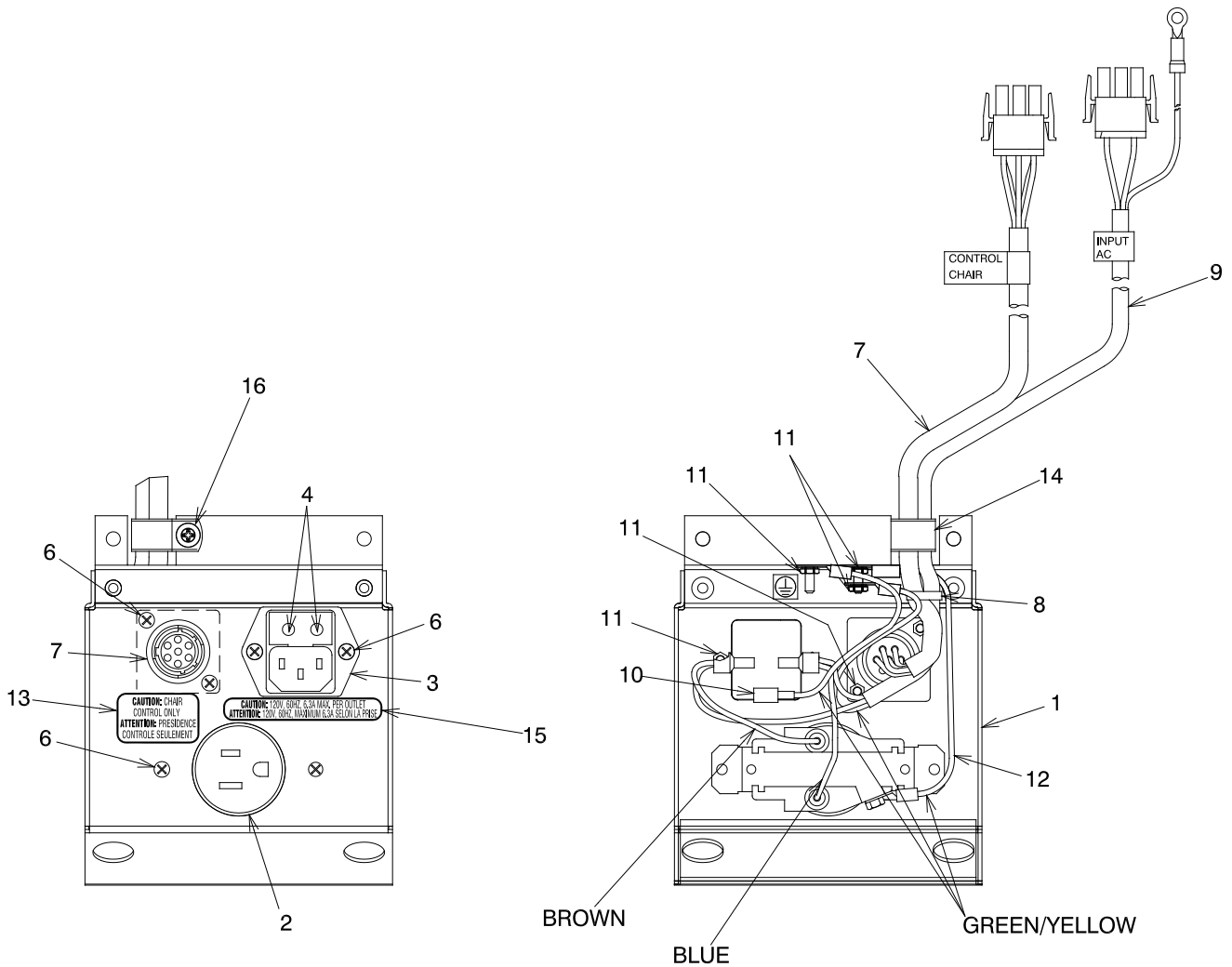
1966192 7900 Roller Frame Assembly*

*Please specify paint color when ordering.

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1627295	Roller Frame*	14	1222399	Spring
2	1663299	Ball Bearing	15	1770192	Coiled Cord Assembly-H.V. 3 Cond
3	1663699	Button H.C.S. 3/8 x 1	16	1770292	Coiled Cord Assembly-L.V. 5 Cond
4	0513099	Clamp Bracket	17	2724499	Ring
5	0497299	Eccentric Bushing	18	2724595	Sleeve
6	0789399	SCKT H.C.S. 5/16 x 1-1/4	19	1225499	Lock Shaft
7	0728499	Lockwasher - 3/8 Split	20	0297699	3/8 x 1-3/4 Nylon Pin
8	0729599	Washer - 3/8	21	1730599	12 Circuit Cap
9	0730199	Washer - 5/16	22	1225799	Lock Shoe Pin
10	0728399	Lockwasher - 5/16 Split	23	0732599	Retaining Pin
11	2725399	Upper Lockshoe	24	0506899	Snap Bushing
12	2725499	Lower Lockshoe	25	0506199	Ball Bearing
13	1730699	Wiring Clip			



**FIGURE 26
OUTLET PLATE ASSEMBLY**



To order complete Outlet Plate Assembly use P/N's.

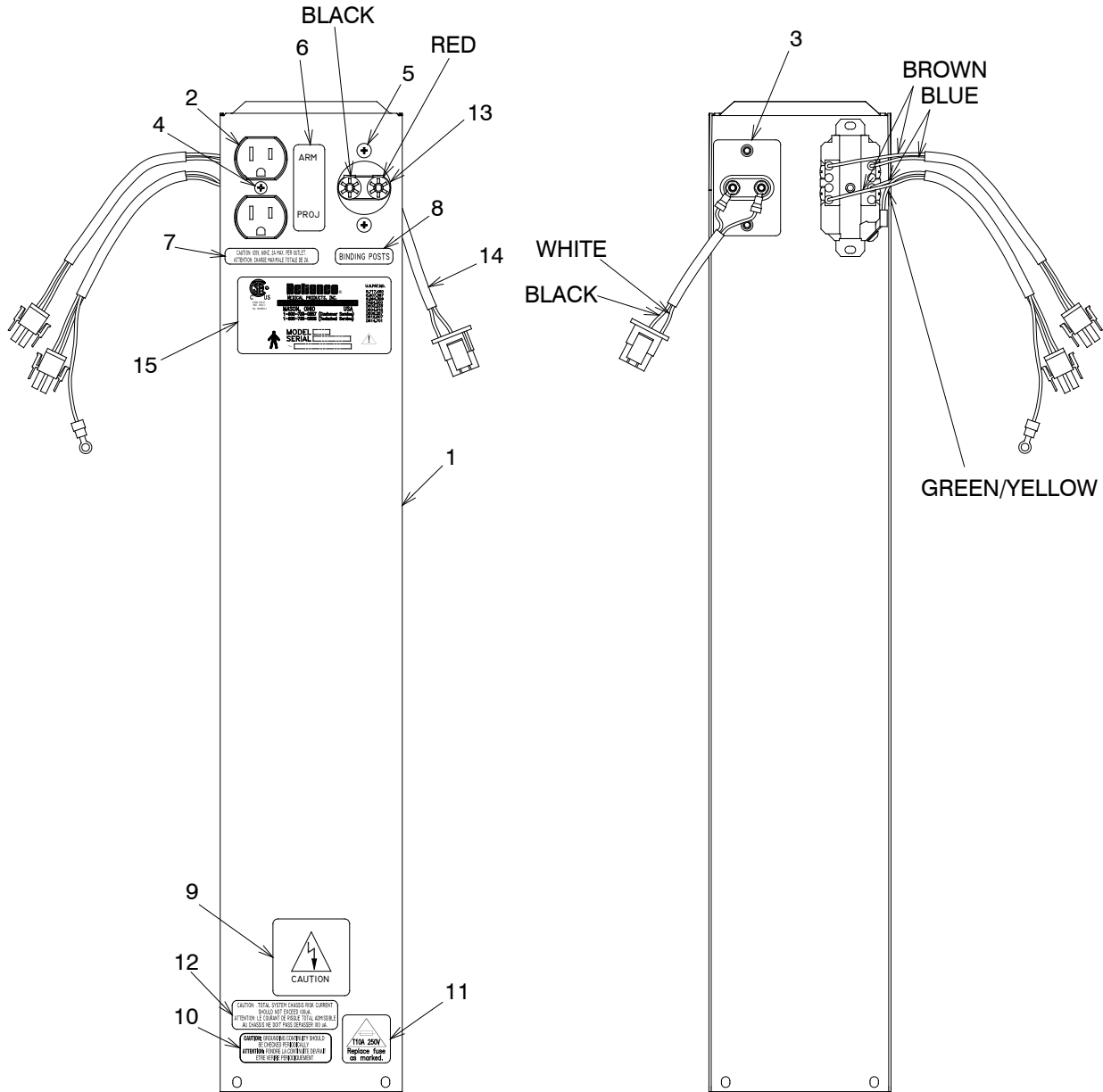
1966992 Outlet Plate Assembly - 120V*

1967092 Outlet Plate Assembly - 230V*

*Please specify paint color when ordering.

ITEM	PART NO.	DESCRIPTION
1	1969803	Outlet Plate-7900*
2	1082899	Receptacle, Single 15A/125V, NEMA 5-15R (120V)
	1733499	Receptacle, Single 15A/250V, NEMA 6-15R (230V)
3	1976799	Power Entry Module W/Filter
4		Fusedrawer, 2 Pole (in Item 3)
5	1682399	Fuse, 10A/250V (120V)
	1634299	Fuse, 6.3A/250V (230 V)
6	0290299	T.H.M.S. #6-32 X3/8 - Phillips
7	1970599	Chair Control Cable - Internal
8	0904499	Cable Clamp 1/2 I.D.
9	1970692	AC Input Cord Set.
10	1977492	Ground Wire Assembly
11	0706599	Nut, Hex - #6-32 Keps
12	1977592	Ground Wire Assembly
13	1446099	Label- Chair Control
14	0591999	Cable Clamp - .50
15	1680399	Label, 6.3A/250V (120V)
	1680499	Label, 4A/250V (230V)
16	1734799	#10-32 x 3/8 P.H.M.S. W/Lockwasher

**FIGURE 27
BACK COVER ASSEMBLY**



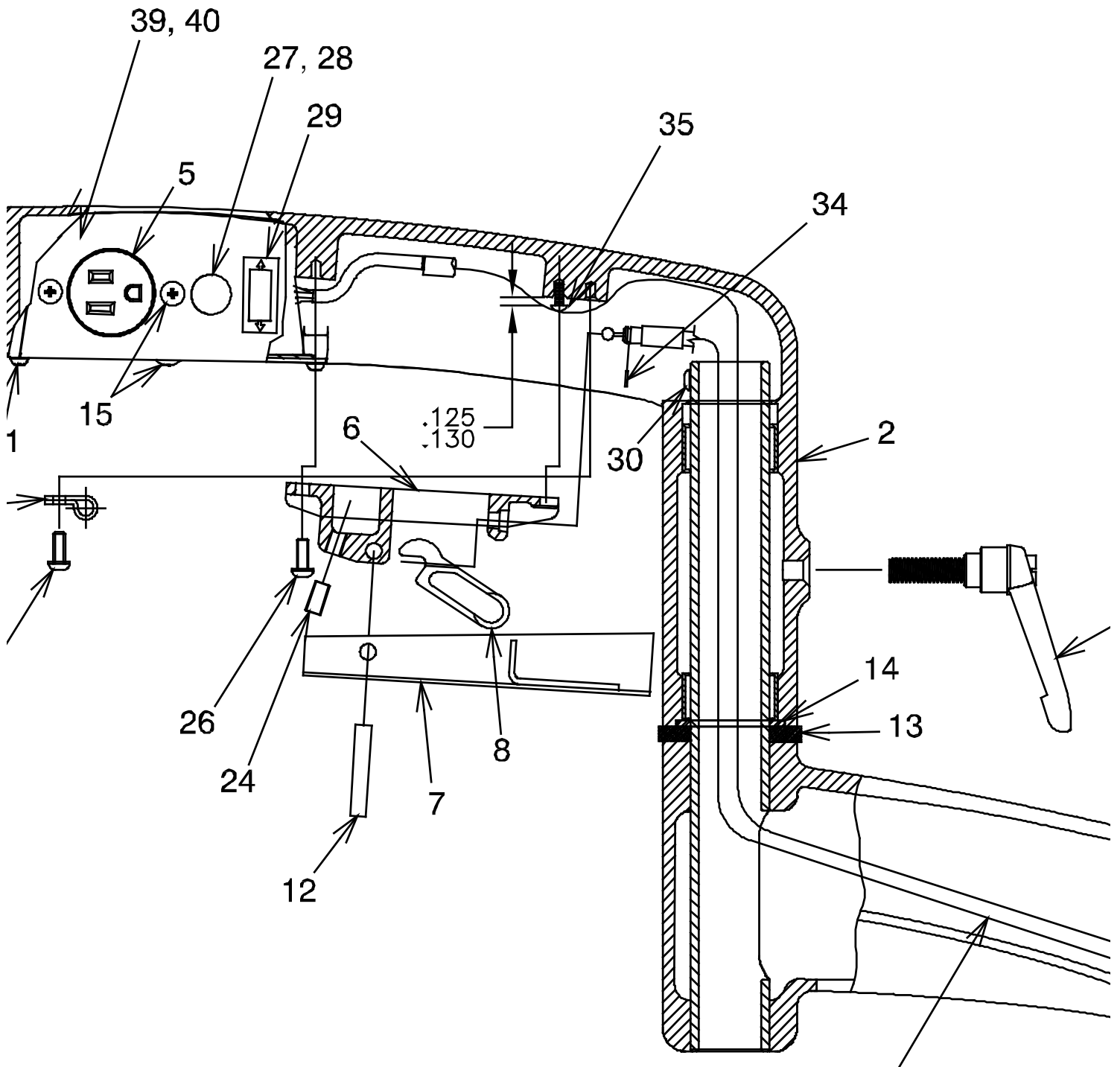
To order complete Back Cover Assembly use P/N's.

- 1967192 Back Cover Assembly - 120V*
- 1967292 Back Cover Assembly - 230V*
- 2047792 Back Cover Assembly - Base Cap - 120V*
- 2047892 Back Cover Assembly - Base Cap - 230V*

*Please specify paint color when ordering.

ITEM	PART NO.	DESCRIPTION
1	1971403	Back Cover-7900*
2	2034692	Auxiliary Cable Assembly - Console - 120V
	2034792	Auxiliary Cable Assembly - Console - 230V
	2039992	Auxiliary Cable Assembly - Base Cap - 120V
	2040092	Auxiliary Cable Assembly - Base Cap - 230V
3	2034503	Cover Plate* (Used With Base Cap)
	2034392	Dual Binding Post Assembly
	2040692	Hubbell Twist Lock Assembly
	2054492	Indirect Hanger Plate Assembly
4	0302099	T.H.M.S. #6-32 X 1/2 - Phillips
5	0824399	T.H.M.S. #8-32 X 3/8 - Phillips
6	1682699	Label - Arm & Projector
7	1680199	Label - 2A Max. - 120V
	1680299	Label - 1A Max. - 230V
8	1680599	Label - Binding Post
	2054399	Label - Indirect Hanger
9	1682199	Label - Caution Shock Hazard
10	1083199	Label - Caution Continuity
11	1682499	Label - T10A/250V (120V)
	1622999	Label - T6.3A/250V (230V)
12	1682299	Label - Leakage Current
13	2034199	Dual Binding Posts
	2034499	Twist Lock Hubbell
14	2034292	Binding Post Jumper Assembly
	2046392	Hubbell I Twist Lock Jumper Assembly
	2054692	Indirect Hanger Jumper
15		Model and Serial Number Label

FIGURE 28
SLIT LAMP ARM ASSEMBLY



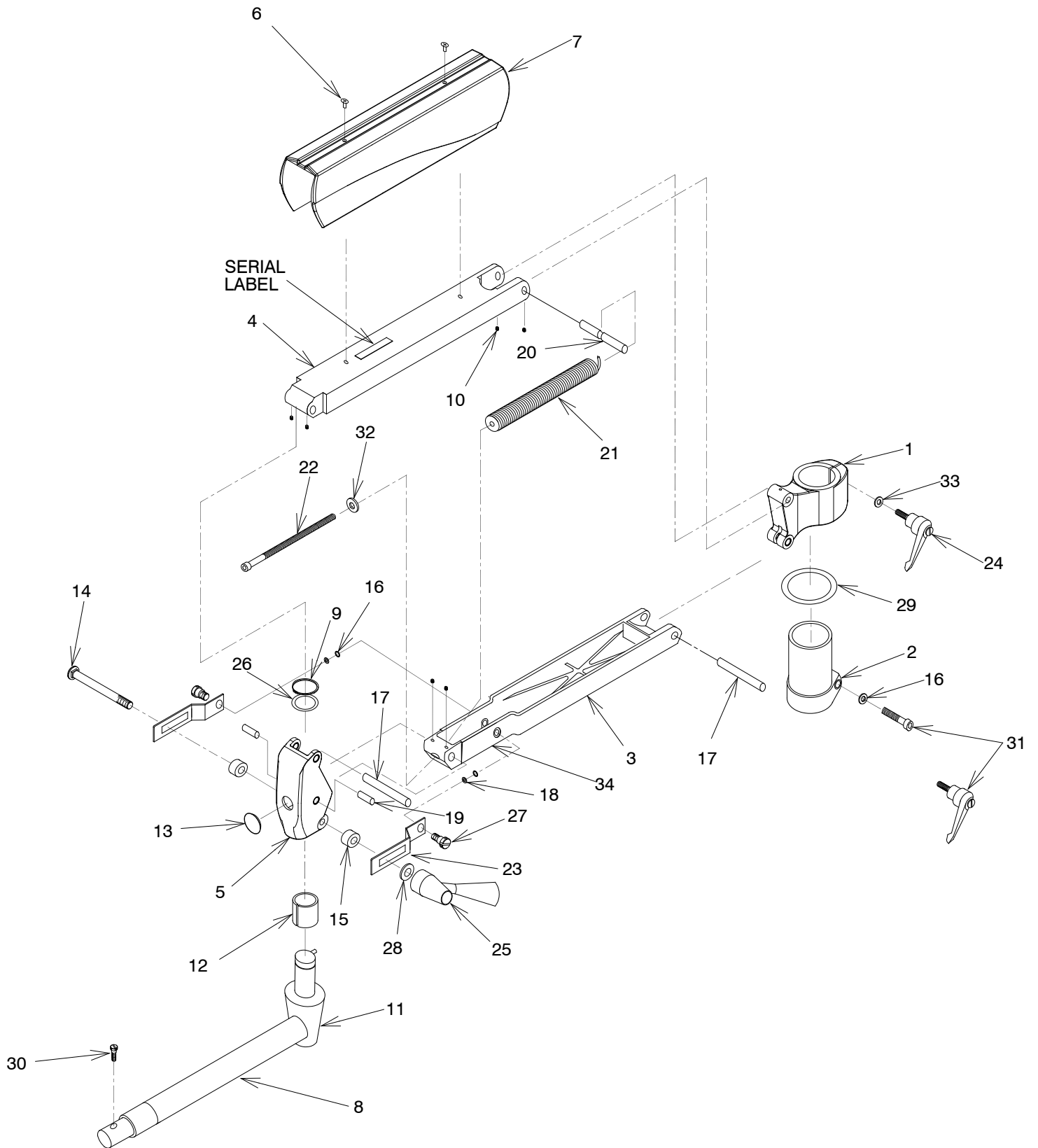
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1967403	Lower Arm Assembly-STD*	22	0513199	1/4 Cable Clamp
	1967503	Lower Arm Assembly-W/C*	23	0722899	1/4-28 x 3/8 Sckt H.S.S.
2	1968092	Upper Arm Assembly-STD*	24	0297799	1/4-28 x 1/2 Sckt H.S.S.
	1968192	Upper Arm Assembly-W/C*	25	1680199	2A Max., 120v/60HZ - 120V Label
3	1442203	Arm Extension*		1680299	2A Max., 230V/50HZ - 230V Label
4	1222699	Handwheel	26	1720399	#10-24 x 1/2 Pan H.M.S. W/Lockwasher
5	1624799	Outlet, S.S. H.G.-15A/125V - 120V	27	1282699	Button Plug (W/O IR)
	1731499	Outlet, S.S. H.G.-15A/250V - 230V		1730099	Pushbutton Switch (W/ IR)
6	0142695	Lever Bracket	28	1734899	Switch Cap W/ IR
7	1225299	Release Lever	29	1513699	Rocker Switch -S.P.D.T
8	1225399	Cable Slide	30	1445299	#10-24 x 3/8 Pan H.M.S.
9	2035199	Locking Handle	31	0295699	1/4-28 Jam Nut
10	1978699	Control Cable Assembly - STD	32	2734199	Cable Adapter Nut
	1978799	Control Cable Assembly - W/C	33	0732599	3/8 Retaining Ring
11	1731599	8 Cond., Cable 18AWG - 48" - STD	34	0297899	1/4 Retaining Ring
	1731599	8 Cond., Cable 18AWG - 45.5" - W/C	35	0716699	#10-24 x 1/2 Round H.M.S.
12	1221999	1/4 Dia. x 1-7/16 Pin	36	0923499	Thrust Bearing
13	0919280	Collar - Chrome	37	1412399	Thrust Washer
14	0961099	Washer, Thrust	38	0807799	1/4-20 x 3/8 Sckt H.C.S.
15	0843599	Truss H.M.S. #8-32 x 5/8	39	2933503	Upper Arm Cover Plate*
16	0688099	5/16 Plug Button	40	2933603	Upper Arm Cover Plate - Blank*
17	0536999	Hole Plug	41	1658699	#6-32 x .25 Pan M.H.S. W/Lockwasher
18	0506599	Washer, Thrust	42	2043499	Room Light Label (With IR Only)
19	0506399	Bearing-Thrust	43	2043299	Up Label
20	1442199	Leveling Sleeve	44	2043399	Down Label
21	0920199	Pivot Pin	45	2074799	Label-Safe Working Load-60 lbs

To order complete Slit Lamp Arm Assembly use P/N's.

- 1965792 Slit Lamp Arm Assembly- W/O IR
- 1965892 Slit Lamp Arm Assembly- W/ IR
- 1965992 Slit Lamp Arm Assembly W.C.-W/O IR
- 1966092 Slit Lamp Arm Assembly W.C..-W/ IR

*Please specify paint color when ordering.

FIGURE 29
MODEL 5250 DUAL LOCK REFRACTOR ASSEMBLY



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1973603	Support Assembly*	18	0298299	Washer - .005
2	0950103	Clamp Sleeve*	19	0503295	Pivot Pin
3	0515203	Suspension-Lower Arm Assembly*	20	0501495	Spring Pin
4	0117803	Suspension-Upper Arm Assembly*	21	0512992	Spring Assembly
5	1975803	Front Housing Assembly*	22	0501699	Screw - Adjustment 5/16-18 x7
6	0789199	THMS #10-24 x 3/8 - Phils	23	0502980	Lock Link
7	2855799	Refractor Arm Cover*	24	1979299	Adjustable Handle
8	1144680	Instrument Arm - Standard	25	1113292	Lock Handle Assembly
	1606380	Instrument Arm - Wheelchair	26	0506595	Thrust Washer
9	0732199	Retaining Ring	27	0508380	Pivot Screw
10	0802599	Set Screw - #10-24 x 1/4	28	0508699	Washer - 3/4
11	1144580	Arm Stud	29	0514399	Washer - 2 3/8
12	0503395	Bushing (Part of Item 5)	30	1526299	Screw - 1/4 -24
13	0387380	Plug Button	31	0808799	Cap Screw - Standard
14	0291399	Lock Bolt		1702599	Adjustable Handle - Wheelchair
15	0508880	Bushing	32	0730199	.312 SAE Washer
16	0354899	Valve Rod Spring Washer	33	0729599	.375 SAE Washer
17	0503195	Pivot Pin	34	2074599	Label-Safe Working Load-20lbs

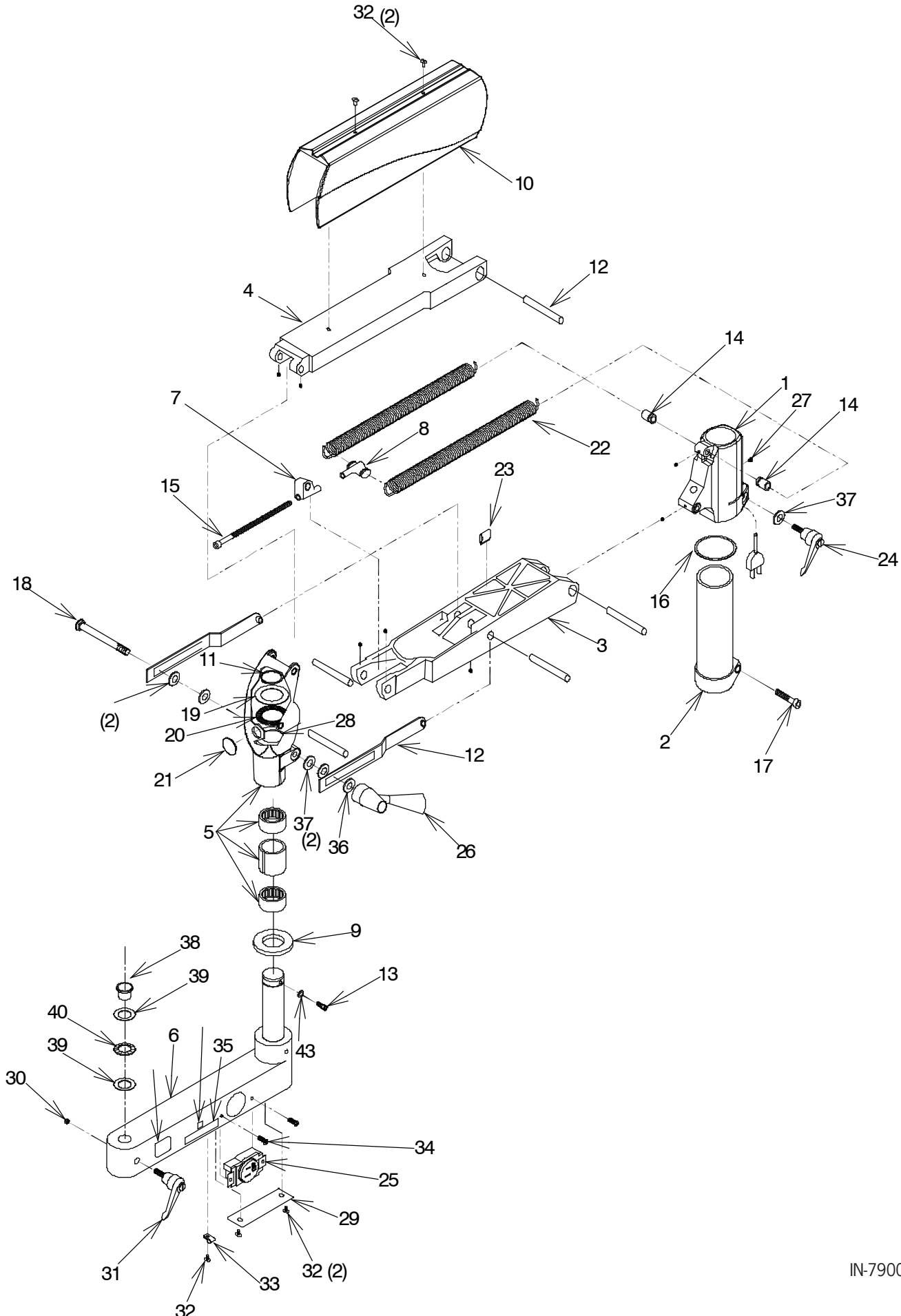
To order complete Dual Lock Refractor Assembly use P/N's.

525010 Refractor Suspension Arm Assembly - Standard (Dual Lock Refractor Arm)

525011 Refractor Suspension Arm Assembly - Wheelchair (Dual Lock Refractor Arm)

*Please specify paint color when ordering.

FIGURE 30
MODEL 5380 AUXILIARY (3RD) ASSEMBLY



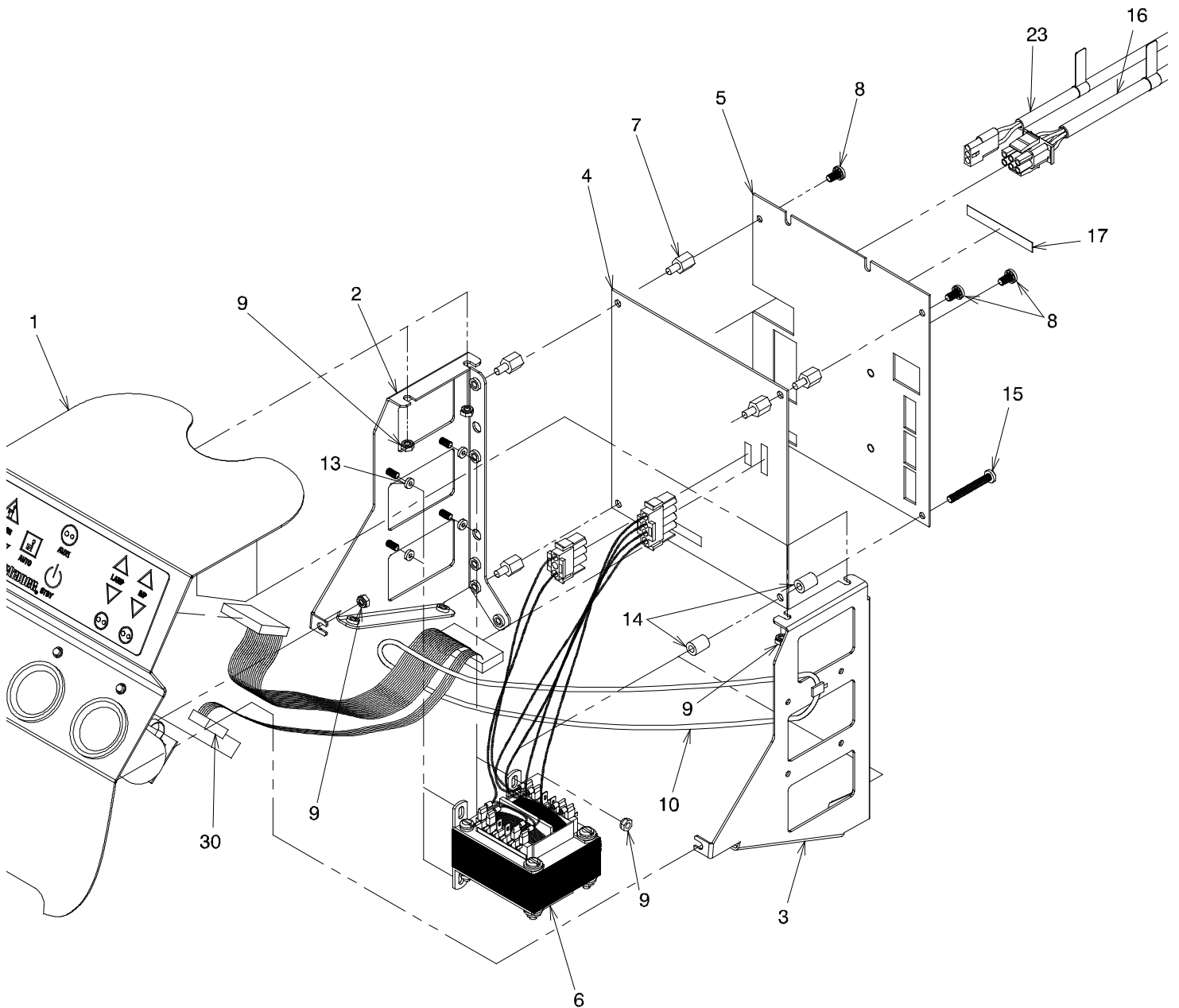
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1974103	Support*	24	1979299	Adjustable Handle
2	1974303	Clamp Sleeve*	25	1082899	Outlet-Single H.G. - 120V
3	0541803	Lower Arm Assembly*	25	1733499	Outlet-Single H.G. - 230V
4	0541903	Upper Arm Assembly*	26	1113292	Lock Handle Assembly
5	1978403	Front Housing Assembly*	27	1679999	Machine Screw
6	1750203	Swing Arm Assembly*	28	0506699	Thrust Washer
7	0541792	Spring Anchor Assembly	29	1701403	Cover*
8	0119585	Spring Anchor	30	0688099	Plug Button
9	0919280	Collar	31	2035199	Adjustable Handle
10	2855899	Cover, Third Arm*	32	0789199	#10-24 x .38 R.H.M.S. - Phil
11	0732399	Retaining Ring	33	0513199	Cable Clamp
12	0532592	Lock Link Assembly	34	0302099	Mounting Screw
13	0807799	1/4-20 x 3/8 Sock't H.C.S.	35	1680199	Label - 2A Max - 120V
14	0532999	Pivot Pin	35	1680299	Label - 1A Max - 230V
15	0501699	Adjusting Screw	36	0508699	Washer-Nylon
16	0514399	Nylon Washer	37	0729599	Washer-Zinc
17	0808799	5/16-24 x 1 1/4 B.H.C.S	38	0536999	Hole Plug
18	0291399	Lock Bolt	39	0506599	Thrust Washer
19	0537499	Thrust Washer	40	0506399	Thrust Bearing
20	0506499	Thrust Bearing	41	2074699	Label-Safe Working Load-50lbs
21	0387380	Plug Button	42	2074499	Label-Consult Accompanying Doc
22	0536599	Tension Spring	43	0728299	Washer - Split Lock 1/4
23	0536799	Wire Clip			

To order complete Auxiliary (3rd) Arm Assembly use P/N's.

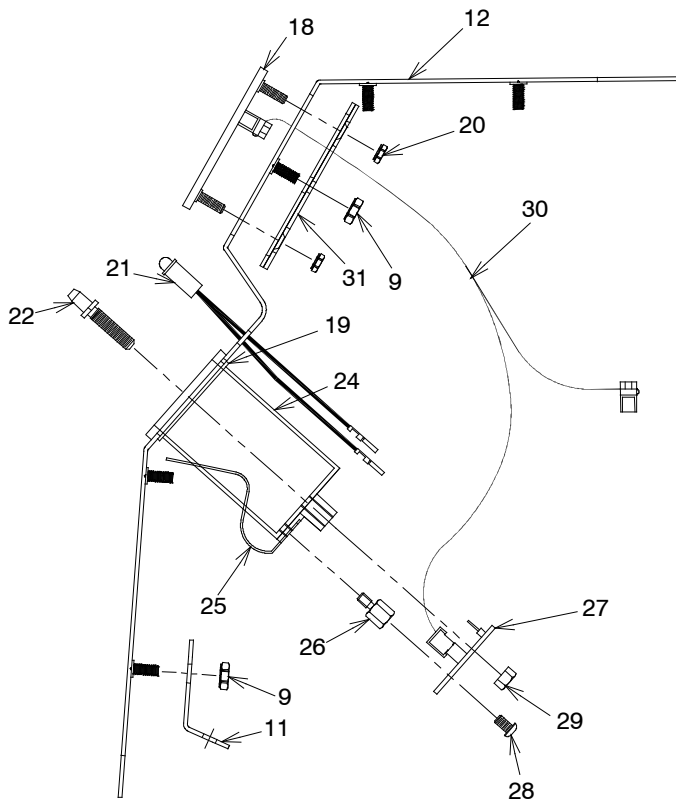
538011 Auxiliary (3rd) Arm Assembly - AC Plug*

*Please specify paint color when ordering.

FIGURE 31
INSTRUMENT CONSOLE MODULE ASSEMBLY W/O IR



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1966292	Face Plate Assembly-7900 W/O IR	17		Label-Serial Number
2	1971899	Module - Side Frame - LH	18	1644299	Membrane Switch W/O IR
3	1971999	Module - Side Frame - RH	19	0733199	Retaining Ring
4	1977299	Circuit Board Assembly	20	0706599	#6-32 Keps Nuts
5	1972599	Chassis Plate	21	1622899	L.E.D. Light Assembly
6	1978992	Transformer Assembly	22	2006499	Contact Stud-Short
7	1734599	#10-32 x 7/16 M/F - Hex - Standoff	23	1663092	Lamp Cord Jumper
8	1734799	#10-32 x 3/8 P.H.M.S. W/ Lockwasher	24	0505299	Battery Socket
9	0706699	#8-32 Keps Nut	25	0489199	Contact Spring
10	0904499	Ty-Wrap	26	1614999	Standoff, Hex Male/Female-Brass
11	1976499	Face Plate - Mount Tab	27	1550999	Circuit Board Assembly-Wells
12	1970999	Face Plate - Console	28	1658699	Pan H.M.S. #6-32 x 1/4 W/Lockwasher
13	0977799	Rubber Washer	29	0705599	#10-32 Kep Nuts
14	1979899	Spacer	30	1970399	Ribbon Cable Assembly
15	1979999	#10-32 x 1.5 P.H.M.S	31	1976899	Membrane Frame Assembly
16	2040292	B/P Jumper	32		



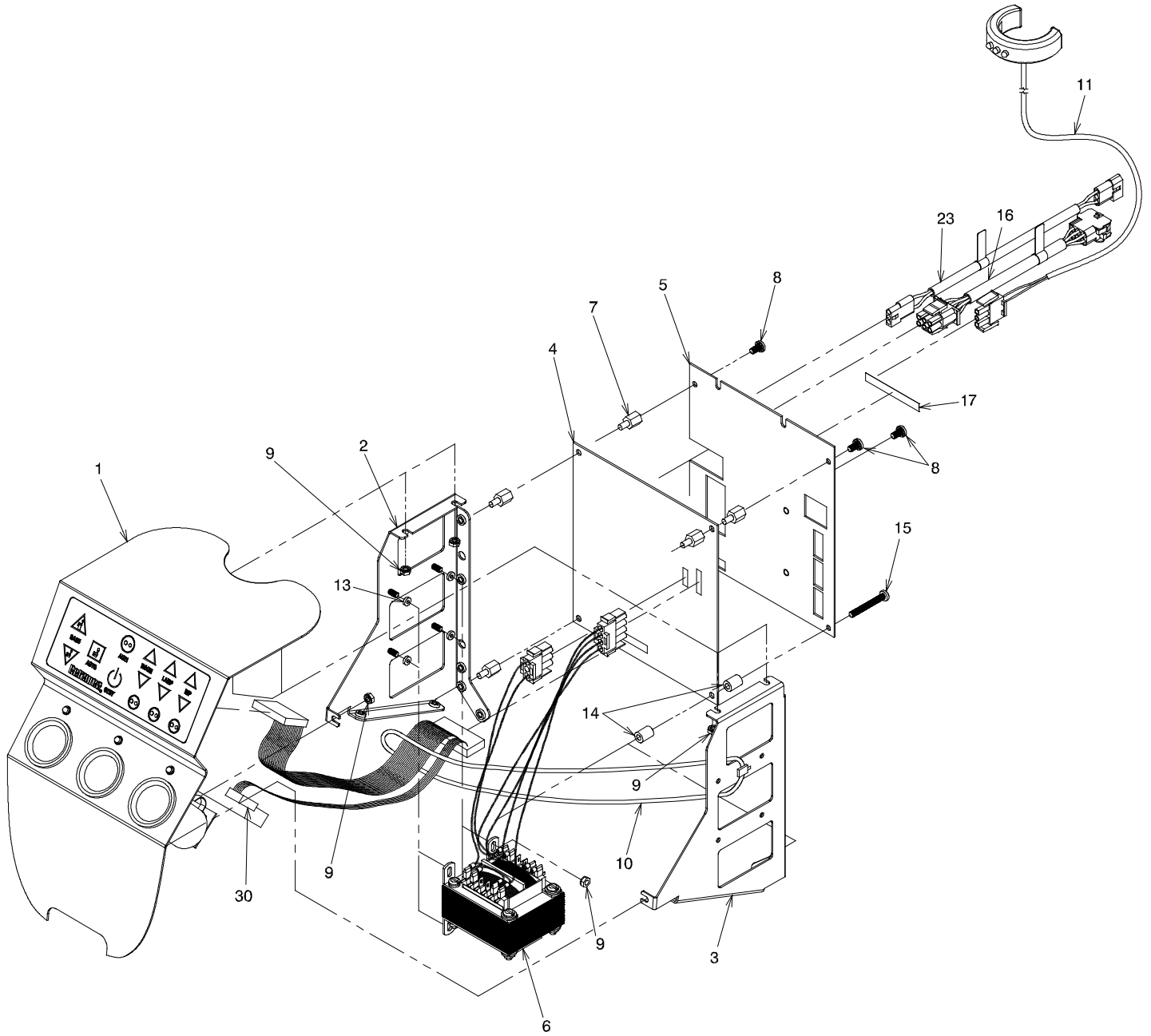
IN-7900

To order complete Console Assembly use P/N.

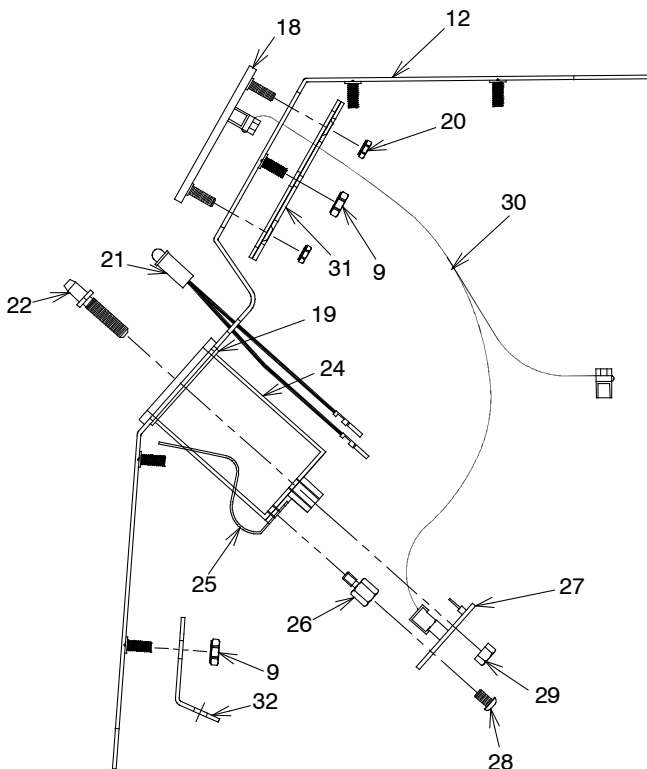
1968592 7900 Console Module Assembly Without IR

*Please specify paint color when ordering.

FIGURE 32
INSTRUMENT CONSOLE MODULE ASSEMBLY W/ IR



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1966392	Face Plate Assembly-7900 W/ IR	17		Label - Serial Number
2	1971899	Module - Side Frame - LH	18	1644399	Membrane Switch W/ IR
3	1971999	Module - Side Frame - RH	19	0733199	Retaining Ring
4	1977299	Circuit Board Assembly - W/ IR	20	0706599	#6-32 Kep Nuts
5	1972599	Chassis Plate	21	1622899	L.E.D. Light Assembly
6	1978992	Transformer Assembly	22	2006499	Contact Stud-Short
7	1734599	#10-32 x 7/16 M/F - Hex - Standoff	23	1663092	Lamp Cord Jumper
8	1734799	#10-32 x 3/8 P.H.M.S. W/ Lockwasher	24	0505299	Battery Socket
9	0706699	#8-32 Keps Nut	25	0489199	Contact Spring
10	0904499	Ty-Wrap	26	1614999	Standoff, Hex Male/Female-Brass
11	1734692	Transmitter - IR	27	1550999	Circuit Board Assembly-Wells
12	1970999	Face Plate - Console	28	1658699	Pan H.M.S. #6-32 x 1/4 W/Lockwasher
13	0977799	Rubber Washer	29	0705599	#10-32 Kep Nuts
14	1979899	Spacer	30	1970399	Ribbon Cable Assembly
15	1979999	#10-32 x 1.5 P.H.M.S	31	1976899	Membrane Frame Assembly
16	2040292	B/P Jumper	32	1976499	Face Plate - Mount Tab

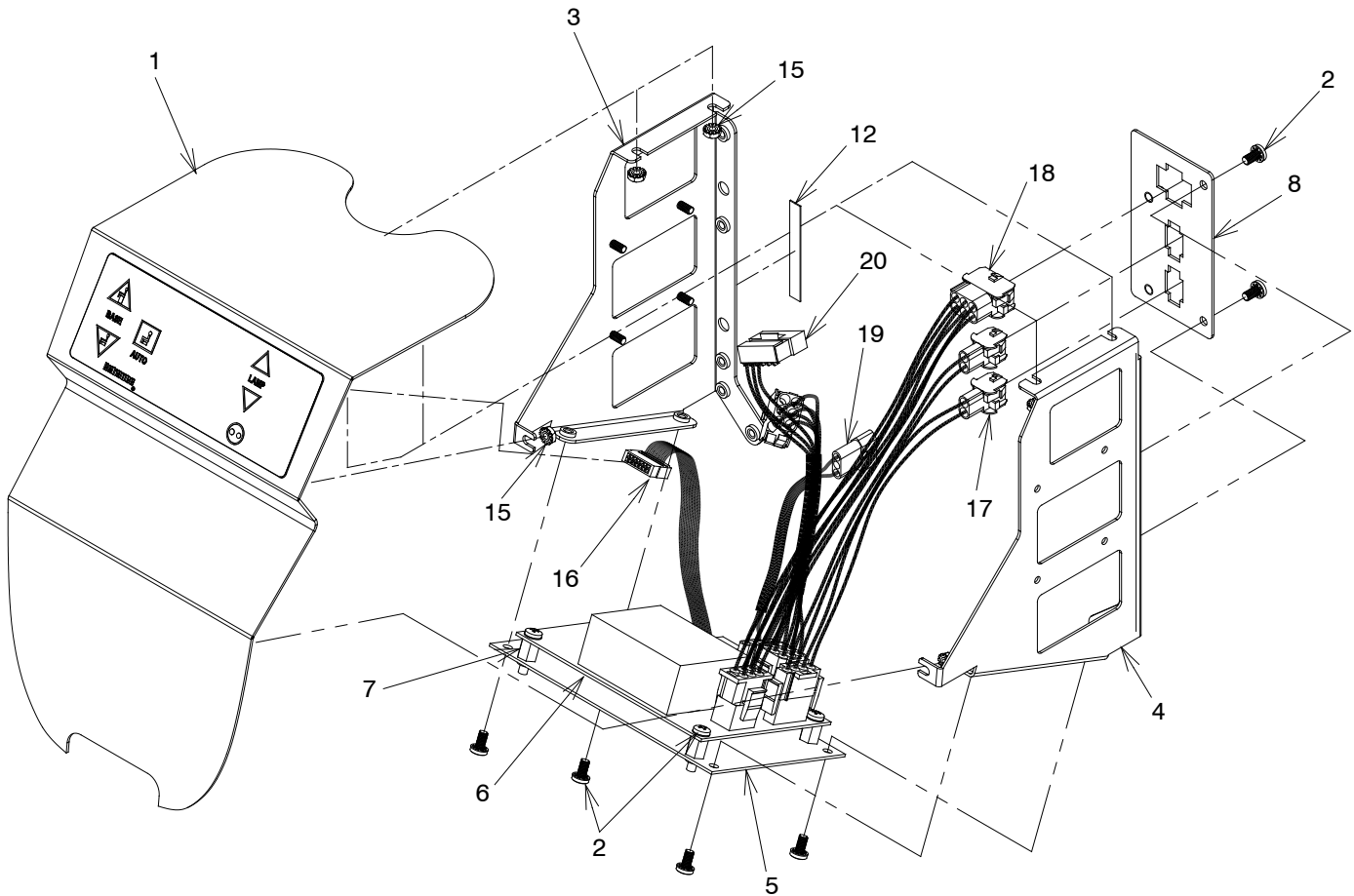


To order complete Console Assembly use P/N.

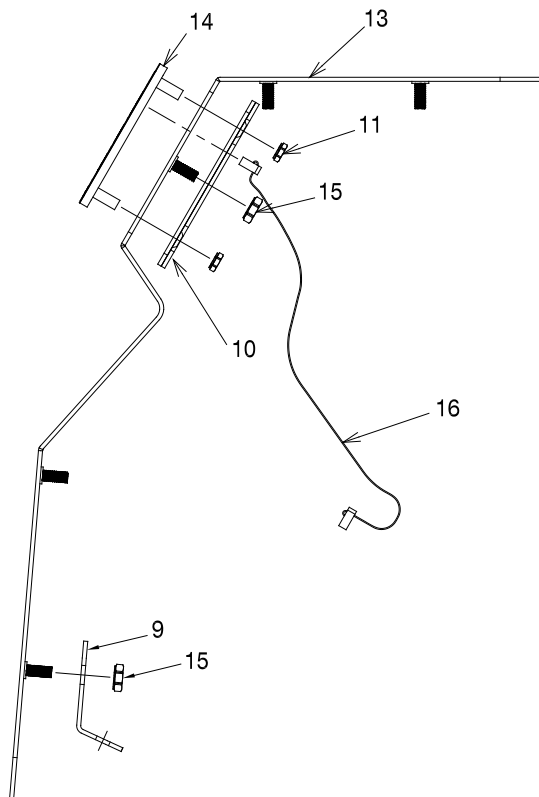
1968692 7900 Console Module Assembly With IR

*Please specify paint color when ordering.

FIGURE 33
BASE CAP MODULE ASSEMBLY - WITH IR



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1966492	Face Plate Assembly-7900 Base Cap	11	0706599	#6-32 Kep Nuts
2	1734799	#10-32 x 3/8 - Pan H.M.S. -Phil	12		Label - Serial Number
3	1971899	Module - Side Frame - LH	13	1972099	Face Plate-7900 Base Cap W/O Wells
4	1971999	Module - Side Frame - RH	14	1968499	Membrane Switch Base Cap Assembly
5	1975299	Circuit Board Mounting Plate	15	0706699	#8-32 Kep Nuts
6	2070199	Circuit Board Assembly	16	1785099	Membrane Switch Cable
7	1734599	#10-32 X 7/16 Hex Standoff	17	2035592	S/L Arm & Outlet Jumper
8	1975199	Chassis Plate - 7900 Base Cap	18	2033192	AC Input Jumper
9	1976499	Face Plate - Mount Tab	19	1663092	Lamp Cord Jumper
10	1976899	Membrane Frame Assembly	20	1973592	Chair Control Jumper - Base Cap

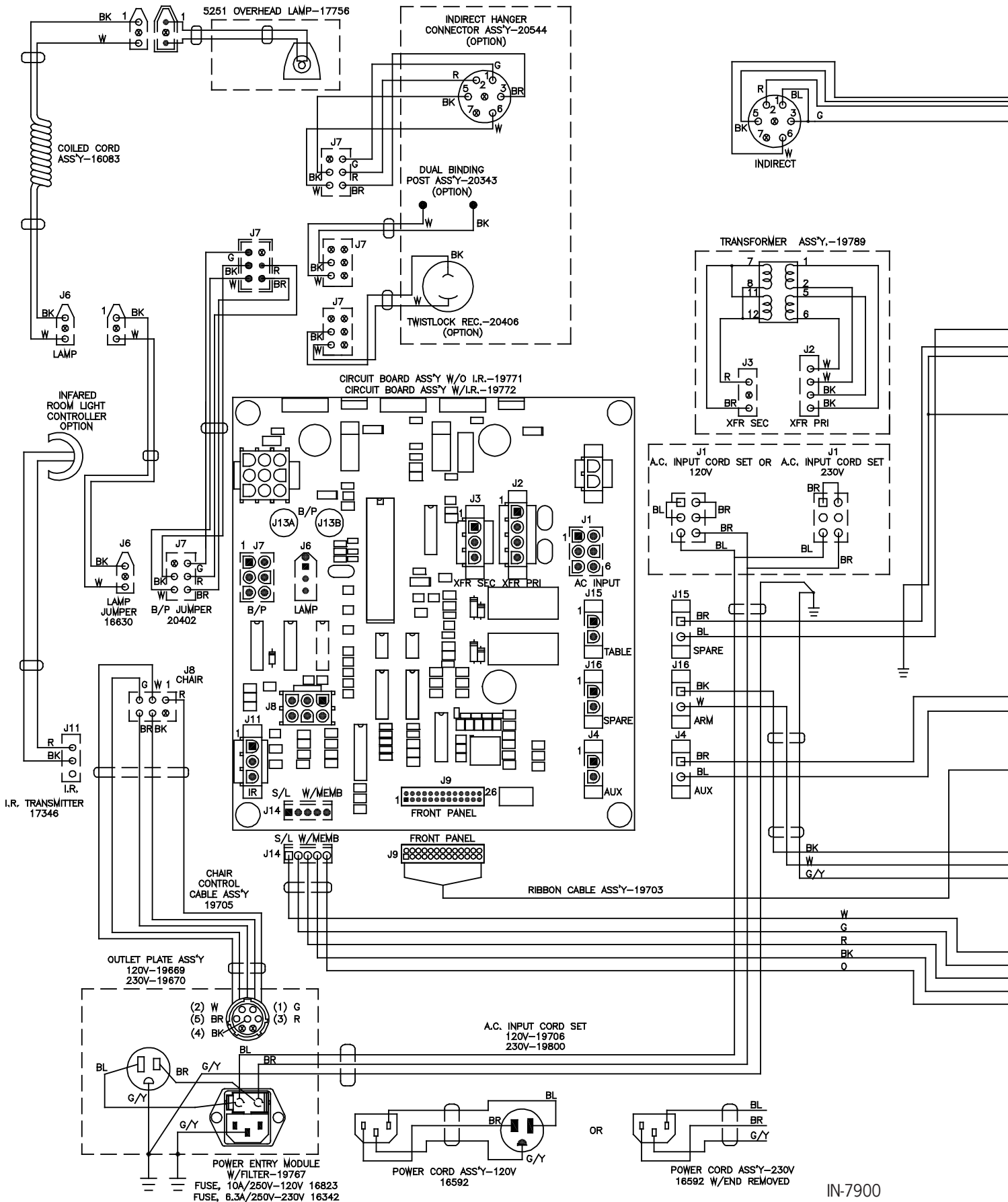


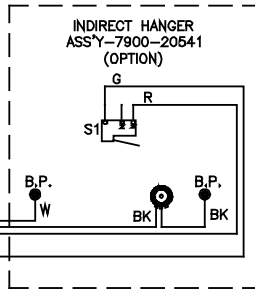
To order complete Console Assembly use P/N.

1968792 7900 Base Cap Module Assembly - with IR

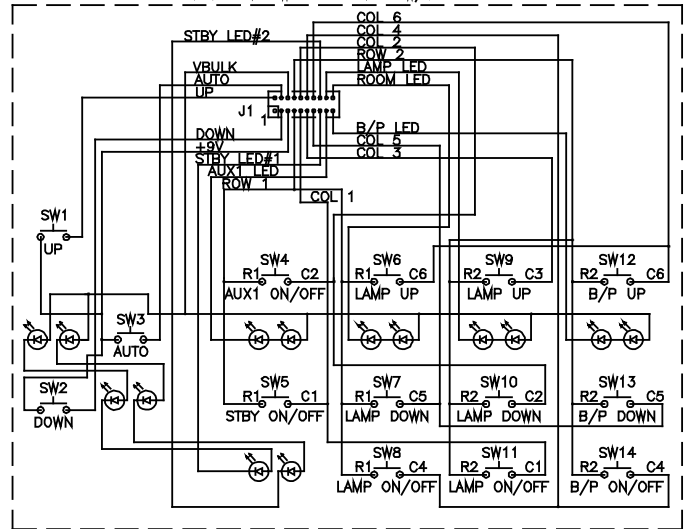
*Please specify paint color when ordering.

FIGURE 34
WIRE DIAGRAM - CONSOLE (WITH AND WITHOUT IR)

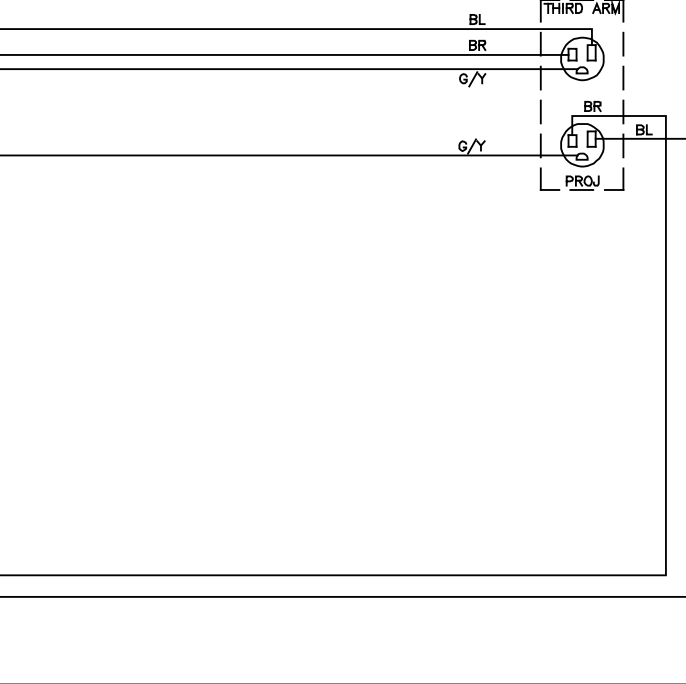




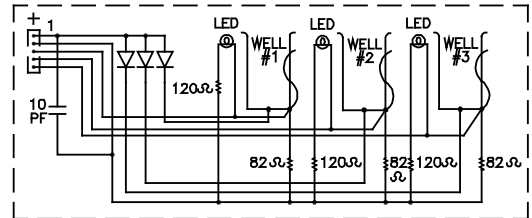
MEMBRANE SWITCH ASSEMBLY W/O I.R.-16442
MEMBRANE SWITCH ASSEMBLY W/I.R.-16443



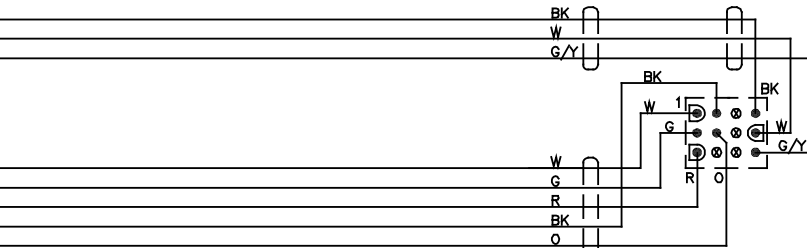
AUX. CABLE
ASS'Y-CONSOLE
120V-20346
230V-20347
120V SHOWN



CHARGING WELL P.C.B.-15509



RIGHT COILED CORD-19701
HIGH VOLTAGE SIDE



LEFT COILED CORD-19702
LOW VOLTAGE SIDE

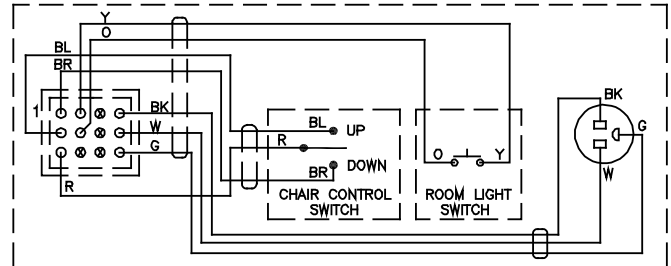
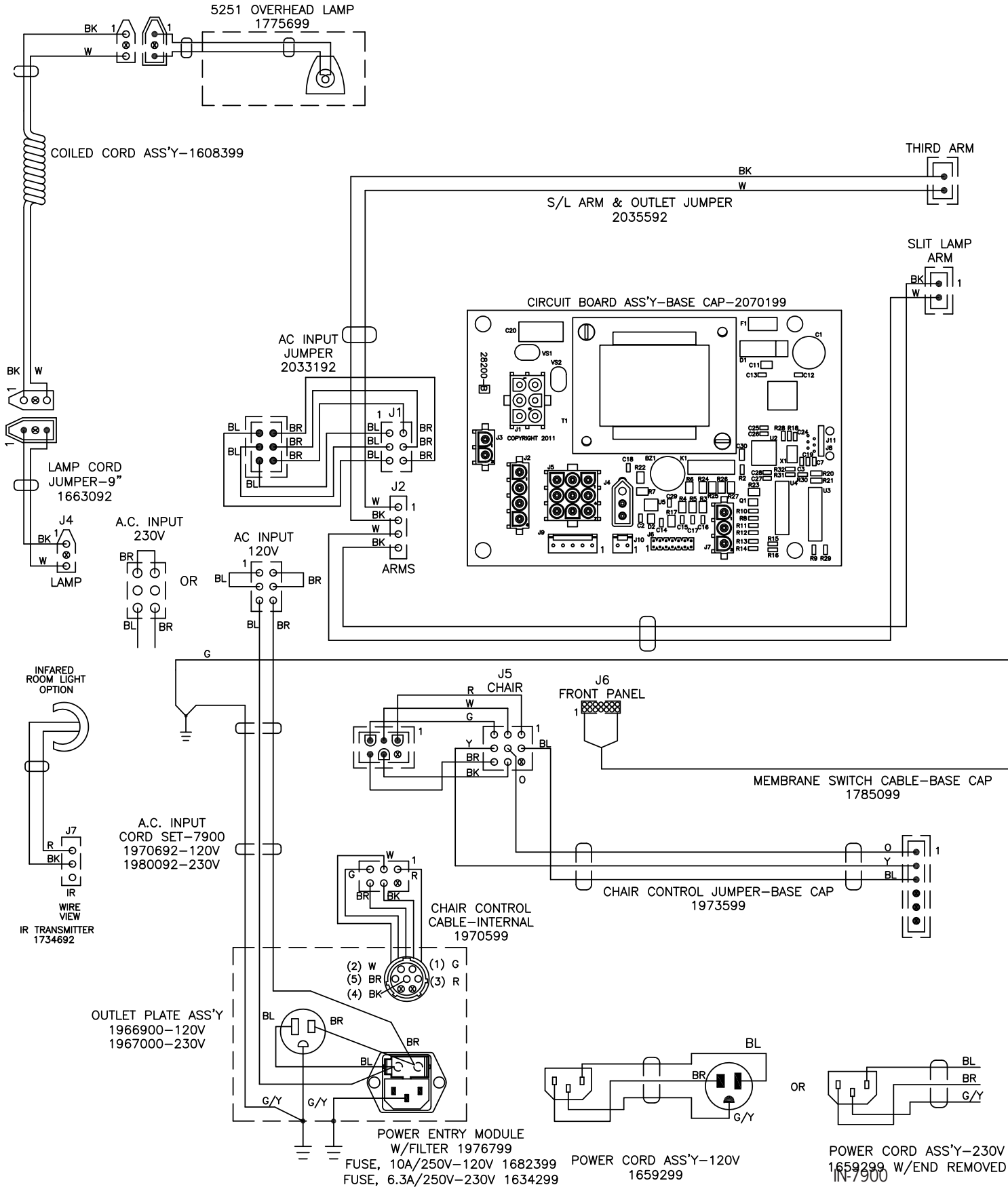
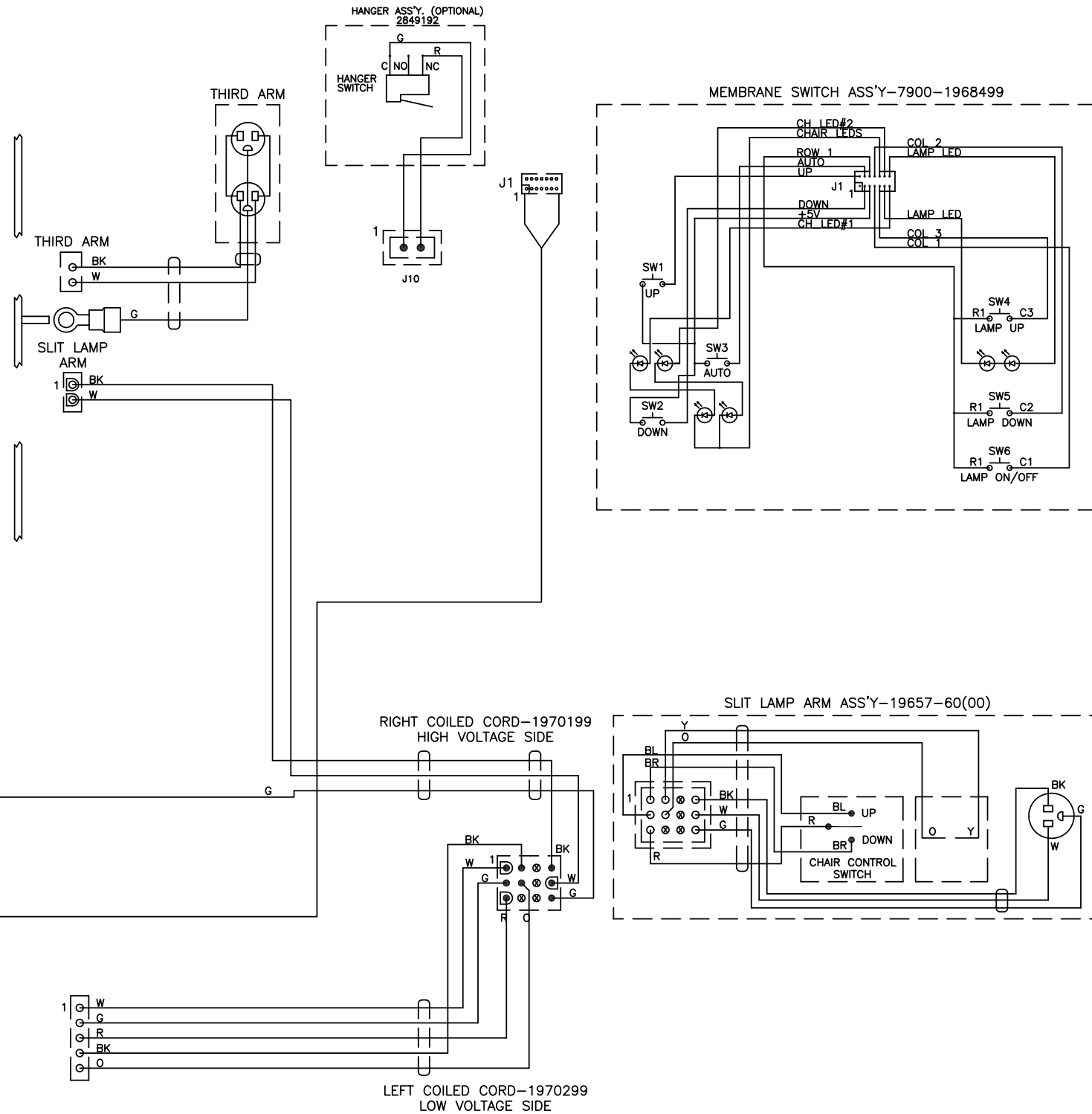


FIGURE 35
WIRE DIAGRAM - BASE CAP - WITH IR





(NOTES)

(NOTES)

(NOTES)

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1-800-735-0357 (Customer Service)
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