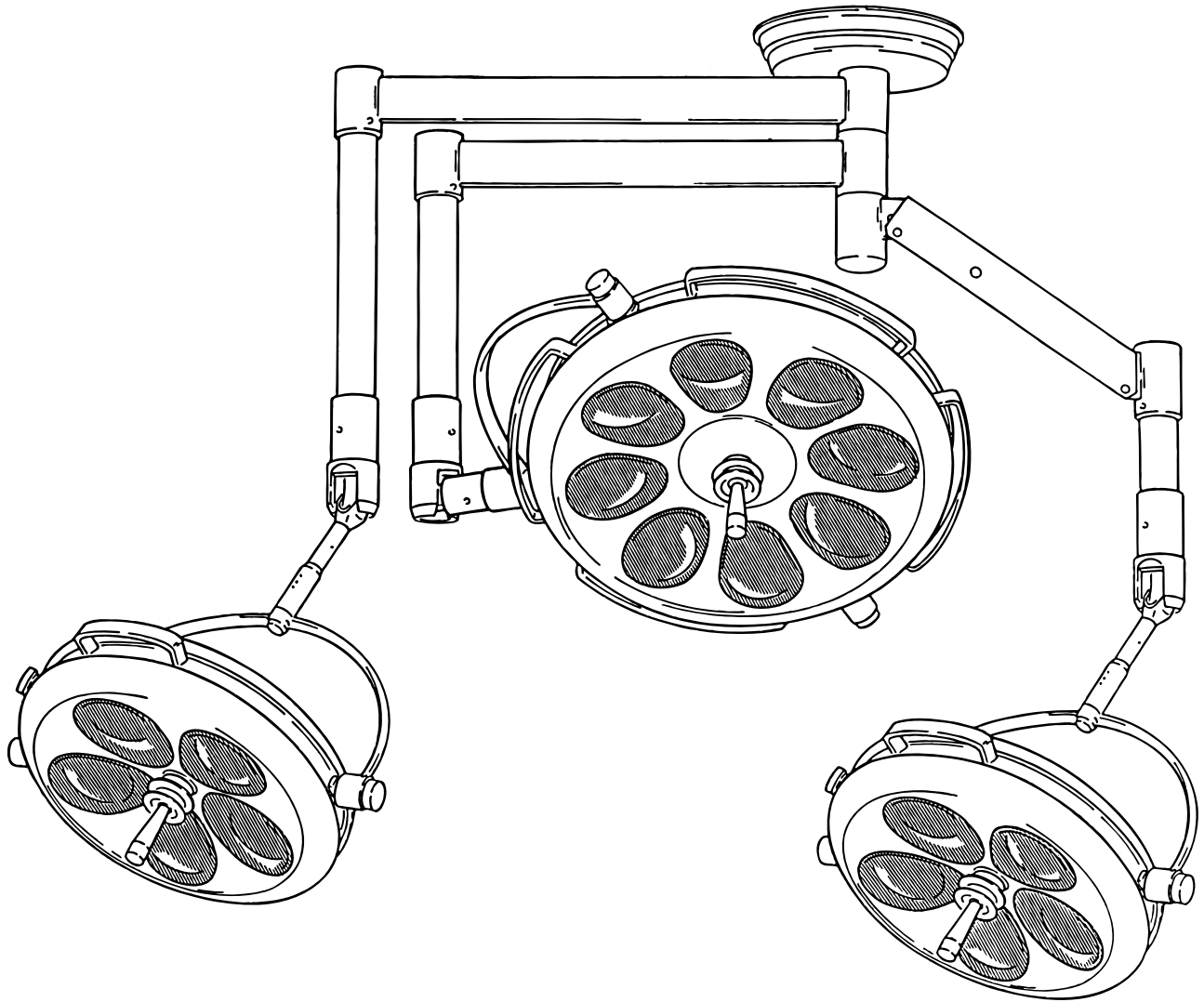


## ***MAINTENANCE AND PARTS***



*infinity*

**SERIES SURGICAL LIGHTS**



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Rev. 9/00

Although current at the time of publication, SKYTRON'S policy of continuous development makes this manual subject to change without notice.



## SECTION I MAINTENANCE

### 1-1. General

To insure proper operation and extend the life of your SKYTRON surgical lighting fixture, the following preventive maintenance procedures are recommended.

#### NOTE

All repairs should be made using authorized SKYTRON replacement parts.

### 1-2. Daily Maintenance

Daily or between cases, the lighthead exterior should be wiped down with a mild cleaning agent which will not adversely affect the painted or acrylic parts.

### 1-3. Preventive Maintenance Procedures

The following procedures should be done semi-annually or sooner as needed.

a. Lighthead top cover should be removed and any accumulation of dust or lint removed.

b. Check the focus drive mechanism for proper operation and lubrication. Lubricate the drive gears with lithium grease and all pivot points with a lightweight oil as necessary.

c. The filter/diffuser assemblies should be removed and dusted with a clean cloth or washed and air dried as a complete assembly. Use plexiglass cleaners, DO NOT use alcohol based cleaners on the acrylic diffusers.

d. All attaching hardware (screws, nuts, etc.) should be physically checked for tightness. Any missing hardware MUST be replaced.

#### WARNING

Apply LOC-TITE to any replacement or loose vertical support tube attaching screws.

e. Rotate the radial arm assemblies around the ceiling mount to check the slip ring/brush block assemblies. With electrical power "ON", if the

lights become intermittent or go out, check and repair or replace the brush block or slip ring as necessary.

f. Check the slip ring/brush block assemblies in the Vertical Support Tube (VST) by raising, lowering, and rotating the lighthead around the VST. With electrical power "ON", if the lights become intermittent or go out, check and repair or replace the brush block or slip ring as necessary.

g. Check all fixture rotation axes for proper adjustment. Adjust as necessary using applicable adjustment procedures from the adjustment section of this manual (Section 2).

### 1-4. Bulb Changing

In that SKYTRON Surgical Lights contain many bulbs, it would not normally be necessary to change a burned out bulb during a surgical procedure. The loss of one or even three bulbs in a large diameter lighthead might go completely unnoticed during use.

To replace a bulb, use the following procedure:

a. Be sure the power is turned "OFF" and the bulb has cooled before changing.

b. Hold the diffuser with one hand, loosen the "1/4-turn" screw, pull cover outward and lower the lens cover. See figure 1-1.

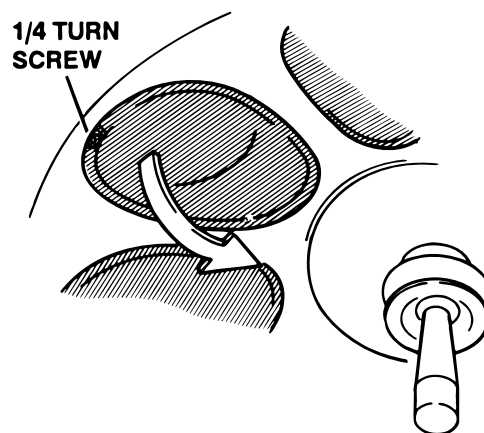


Figure 1-1.

## WARNING

DO NOT attempt to remove the bulb by pulling on the glass surface or end cap. This may cause the bulb to break off in your hand.

c. Using caution not to touch the reflector surface, hold the bulb by the base and pull it out. See figure 1-2. Slightly working the bulb back and forth may aid in bulb removal.

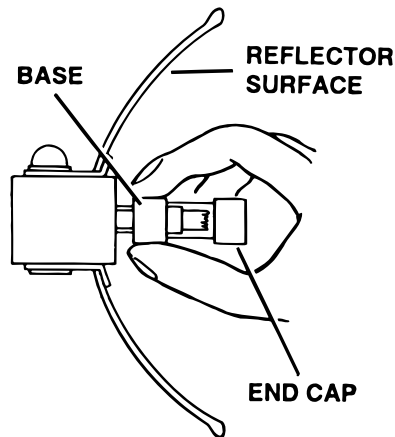


Figure 1-2.

## NOTE

Halogen bulbs are sensitive to body oils. DO NOT handle the glass surface of bulb as body oil from your fingers can create a "hot spot" and may cause the bulb to burn out prematurely.

d. Holding the bulb by the base, plug it directly into the socket. Do not touch the glass portion of the bulb reflector surface with your fingers. This can best be done by using the plastic wrapper that the bulb is packaged in, or a clean cloth wrapped around the base of the bulb when installing. Be sure bulb base is properly seated in the connector to insure proper focus alignment.

## NOTE

To extend the life of the bulb reflector surface, it should NOT be included in normal cleaning. It should be cleaned only if absolutely necessary. Clean gently with a clean, damp, soft cloth and a mild soap solution. NO abrasives.

e. Replace the filter/diffuser assembly by placing the tab into the slot in the lighthouse face. Place the assembly in position and secure with 1/4-turn screw.

## NOTE

Amount of voltage applied to the bulb will affect bulb life. Over voltage will cause the bulbs to burn out prematurely. Proper applied voltage (to the bulb) should be  $20V \pm 0.2V$ .

## 1-5. Focus Adjustment

As part of normal Preventive Maintenance, the individual bulb and lighthouse focus adjustments should be checked. Check the individual bulb focus and lighthouse focus adjustments. If an adjustment is necessary, use the following procedures:

a. Remove all filter/diffuser assemblies. Check all bulbs to make sure the bulb base is flat and securely seated in the connector. Remove the lighthouse top cover screw(s), turn the top cover to release the latches as necessary for early models and remove the top cover.

b. Position the lighthouse 42" from a white test surface. Turn main power "ON" and set intensity on low. Adjust focus control to widest pattern diameter so each bulb can be seen individually. See figure 1-3.

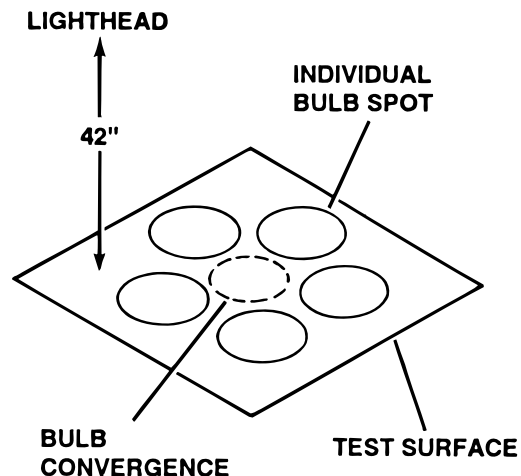
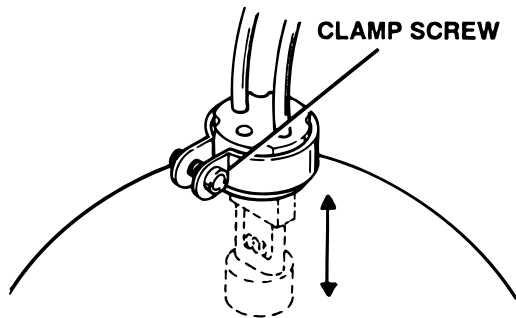


Figure 1-3.

c. To adjust individual bulb focus, loosen the bulb socket retaining clamp screw and move the bulb socket up or down until the best possible focus is achieved. See figure 1-4. Tighten clamp screw.

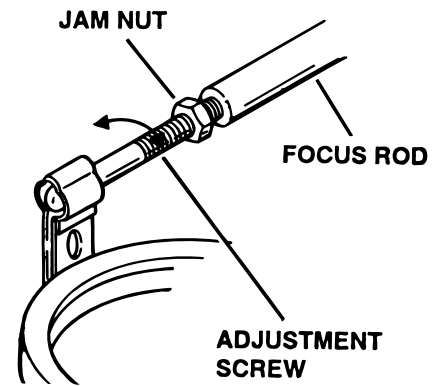


**Figure 1-4. Bulb Focus Adjustment**

d. Adjust the focus control to check that all bulb patterns will converge on a single spot anywhere from two to six feet from lighthouse face.

e. To adjust a misaligned bulb holder, loosen the jam nut on the affected focus rod and turn the adjustment screw as needed to achieve proper alignment. See figure 1-5.

f. Install filter/diffuser assemblies and top cover.



**Figure 1-5.**

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## WARNING

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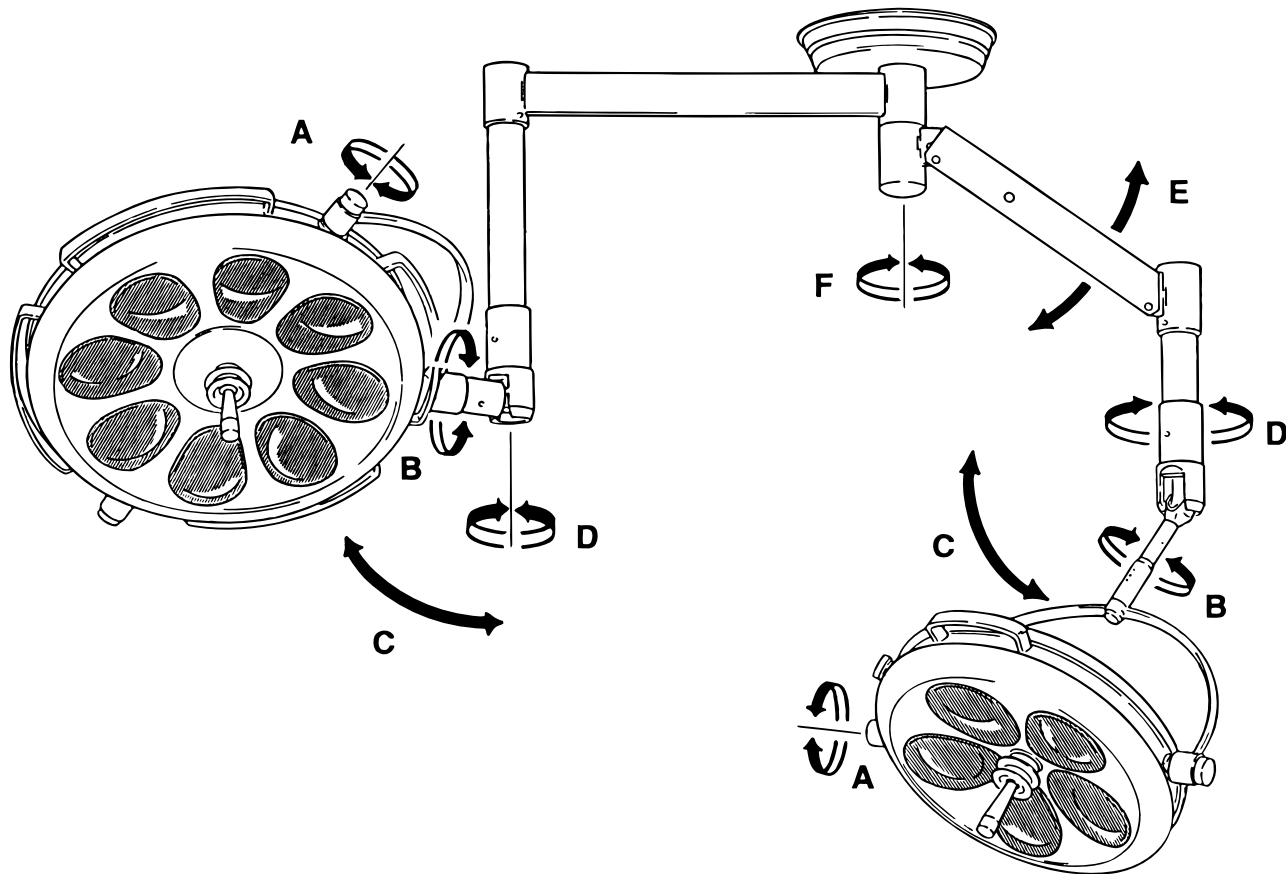
**Do not remove lighthouse when support arm is in down position. The balance mechanism will be severely damaged.**

## SECTION II POSITIONING AXES ADJUSTMENT

## 2-1. General

As a part of normal preventive maintenance, all fixture rotation axes adjustments should be checked

and adjusted as necessary. Refer to figure 2-1 for location of desired check or adjustment procedure.



A-Lighthead Pitch Axis  
 B-Lighthead Roll Axis-  
 •Model 30 lighthead  
 •Model 22 lighthead  
 C-Vertical Travel Tension

paragraph 2-2  
 paragraph 2-3  
 paragraph 2-4  
 paragraph 2-5

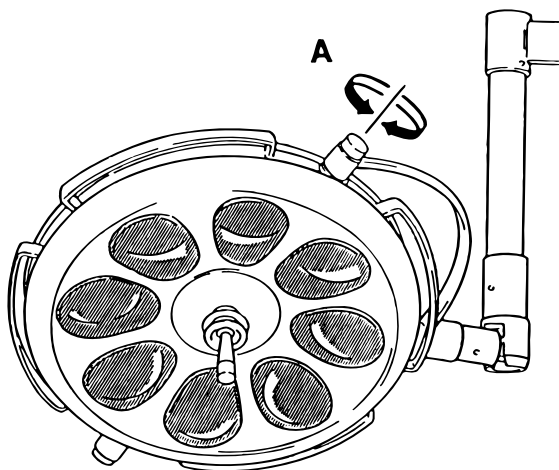
D-Lighthead Horizontal  
 Rotation  
 E-Elevato Arm Adjustment  
 F- Radial Arm Horizontal  
 Rotation

paragraph 2-6  
 paragraph 2-7  
 paragraph 2-9

Figure 2-1. Fixture Rotation Axis

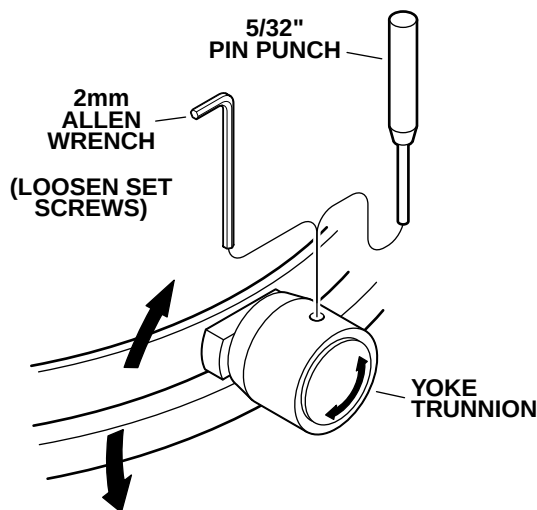
## 2-2. Lighthead Pitch Adjustment

a. Check the pitch axis tension adjustment of each lighthead by moving it through its full range of travel. See figure 2-2.



**Figure 2-2. Lighthead Pitch Movement**

b. The lighthead should move freely yet maintain its position without drifting. If an adjustment is required, refer to figure 2-3 and proceed as follows:



**Figure 2-3. Pitch Axis Adjustment**

c. Locate the holes in the yoke trunnion as shown in figure 2-3. Rotate the lighthead until a set screw is visible through the hole. Using a 2mm allen wrench, loosen the set screw. Rotate the lighthead and loosen any other set screws.

d. Rotate the lighthead until a hole is visible. Insert a pin punch into the hole in the adjustment nut.

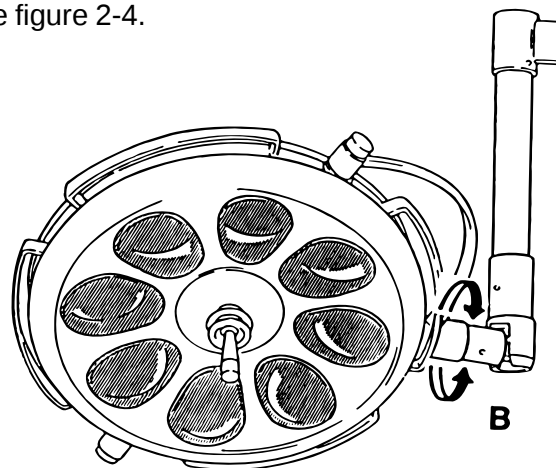
e. With the pin punch in place, move the lighthead clockwise to loosen the pitch adjustment, or counterclockwise to tighten the adjustment. When proper adjustment has been achieved, install and tighten the set screw.

### NOTE

If more than a minor adjustment is required, adjust the trunnion on the opposite side equally.

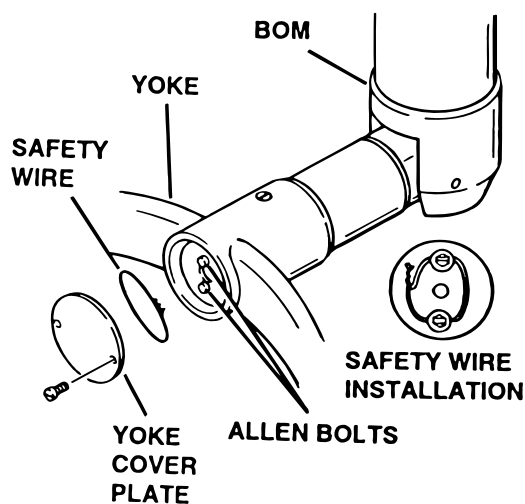
## 2-3. Model 30 Lighthead Roll Adjustment

a. Check the roll axis tension of the model 30 lighthead by moving it through its full range of travel. See figure 2-4.



**Figure 2-4. Model 30 Lighthead Roll**

b. The lighthead should move freely yet maintain its position without drifting. If the lighthead drifts, refer to figure 2-5 and proceed as follows:



**Figure 2-5. Model 30 Roll Adjustment**

c. Remove the yoke cover plate and check the tightness of the retaining allen bolts. These bolts must be tight. If the safety wire is removed, be sure to install new safety wire.

d. If allen bolts are tight and lighthouse still drifts or does not move properly, tighten or loosen the friction brake screw to achieve proper roll axis adjustment. See figure 2-6.

e. If any "squeaking" is noticed during this adjustment check, remove the friction brake screw, apply a small amount of grease on the bushing end of the screw and readjust.

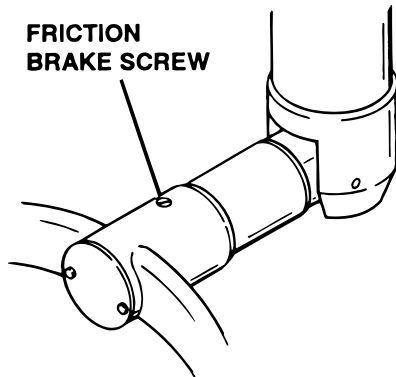


Figure 2-6. Brake Screw

#### 2-4. Model 22 Lighthouse Roll Adjustment

a. Check the roll axis tension of the model 22 lighthouse by moving it through its full range of travel. See figure 2-7.

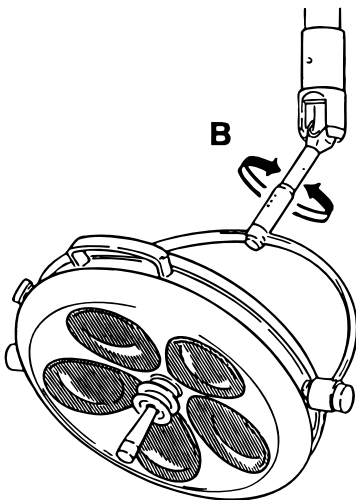


Figure 2-7. Model 22 Lighthouse Roll

b. The lighthouse should move freely yet maintain its position without drifting. If an adjustment is required, refer to figure 2-8 and proceed as follows:

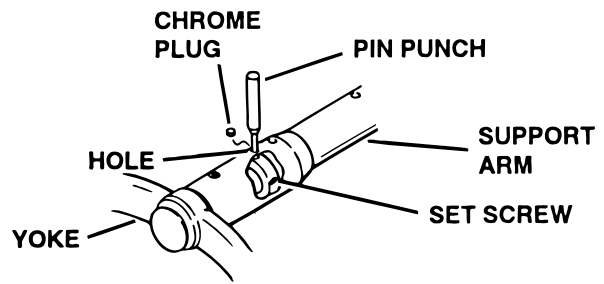


Figure 2-8. Model 22 Roll Adjustment

c. Remove the slotted head chrome plug from the adjustment hole located in the tubular support arm next to the yoke.

d. Rotate the yoke until an allen set screw is visible through the adjustment hole and loosen the set screw.

e. Continue to rotate the yoke until a 5mm hole is visible through the hole. Insert a pin punch into the hole in the adjustment nut.

f. With the tension nut held captive with the pin punch, rotate the yoke clockwise (viewed from the front) to increase the friction and counterclockwise to decrease the friction.

g. Remove pin punch and check the lighthouse for proper tension. Repeat adjustment procedure if necessary. After the adjustment is correct, be sure to tighten the set screw and replace the chrome plug.

#### 2-5. Vertical Travel Tension Adjustment

a. Check the adjustment of the Balance Mechanism for its capacity to support the lighthouse throughout its range of vertical motion. See figure 2-9.

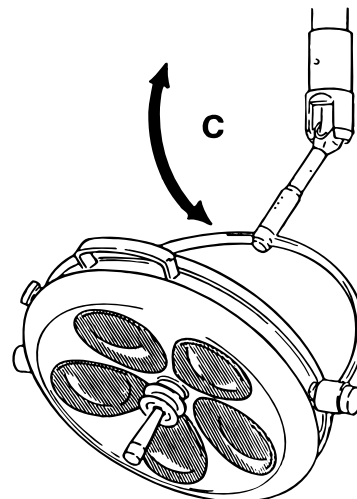
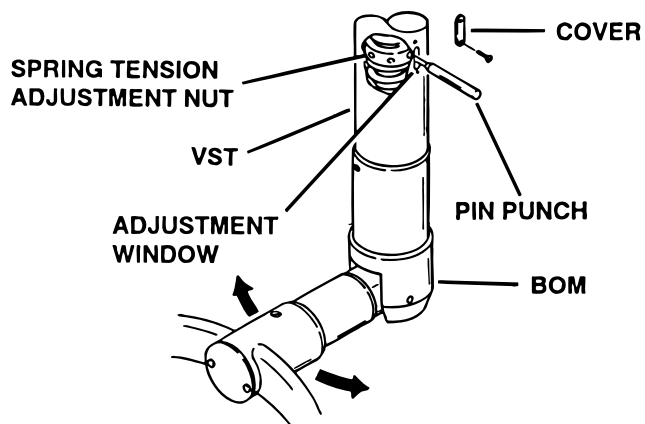


Figure 2-9. Lighthouse Vertical Travel

b. The lighthead should move freely yet maintain its selected position within the range of motion without drifting. If an adjustment is necessary, place the lighthead in its full upright position, refer to figure 2-10, and proceed as follows.



**Figure 2-10. Vertical Travel Adjustment**

c. Remove two screws securing the cover plate and remove the cover plate from the Vertical Support Tube. A spring tension nut is visible under the cover plate.

d. Rotate the lighthead to align a hole in the nut with the window. Insert a 3/8" diameter pin punch through the adjustment window and into a hole of the spring tension adjustment nut.

e. With the punch inserted, capturing the nut, rotate the lighthead clockwise (viewed from the bottom looking upward) around the Vertical Support Tube to increase the tension. Rotate the lighthead counterclockwise to decrease the tension.

f. Remove the pin punch, check and repeat adjustment procedure as necessary to achieve proper spring tension. The lighthead should be able to hold its position at any angle from the VST.

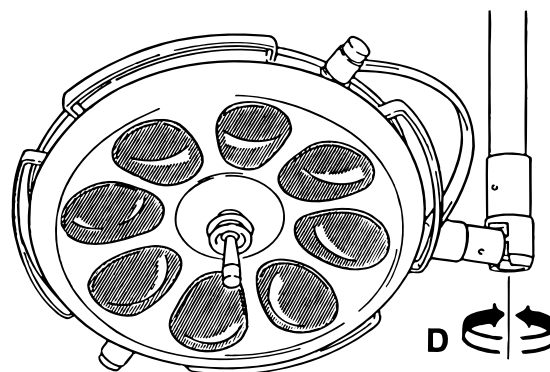
g. Reinstall cover plate on the Vertical Support Tube.

## 2-6. Horizontal Rotation Axis Adjustment

a. Check horizontal rotation axis adjustment by moving the lighthead through its full range of travel around the Balance Mechanism. See figure 2-11.

b. The lighthead should maintain its position without drifting, yet move freely around the Balance Mechanism. Normally this adjustment is correct

from the factory and does not change. If the lighthead drifts, the most likely cause is an uneven mounting plate.

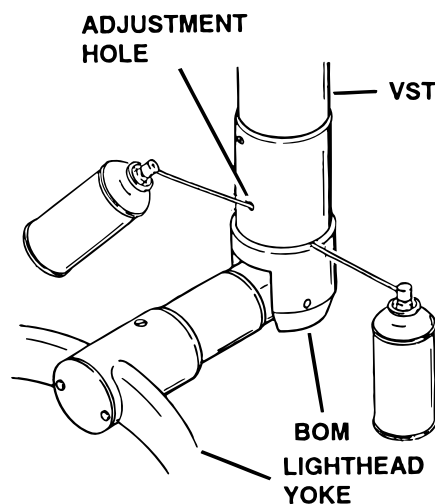


**Figure 2-11. Horizontal Rotation**

### NOTE

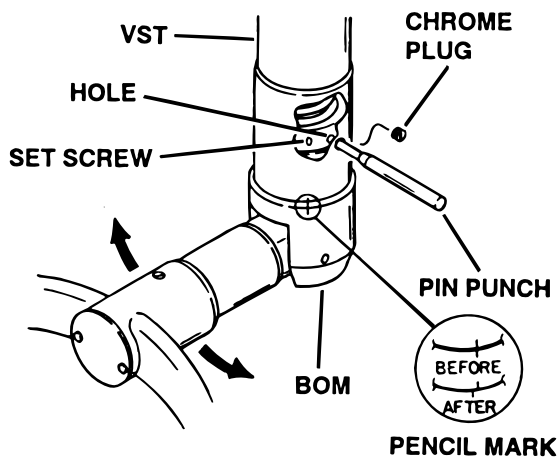
- Recheck the mounting plate to make sure it is absolutely level. In most cases, releveling the mounting plate will solve any drifting problems.

- If the lighthead sticks or is difficult to move, before making any adjustments, lubricate the BOM needle bearings with a Teflon type spray lubricant such as TRI-FLOW (available from Richardson-Vicks, Inc., Memphis, TN) or equivalent. See figure 2-12. After spraying, rotate the lighthead several times in both directions and recheck for proper tension. If tension is still too tight, adjust the bearing preload.



**Figure 2-12. BOM Lubrication**

c. If releveing the mounting plate or lubricating the BOM needle bearings does not correct the problem, an adjustment may be required. This adjustment is made by increasing or decreasing the bearing preload. Refer to figure 2-13 and proceed as follows:



**Figure 2-13. Horizontal Rotation Adjustment**

d. Locate the adjustment hole. This hole is located just beneath the lower VST screws in the BOM and has a slotted head chrome plug in it.

e. Remove the chrome plug, rotate the lighthead around the Balance Mechanism until any set screws are visible through the adjustment hole and loosen them.

f. Continue to rotate the lighthead until a hole in the nut is visible through the adjustment hole. Insert a 15/64" pin punch through the adjustment hole and into the hole in the nut.

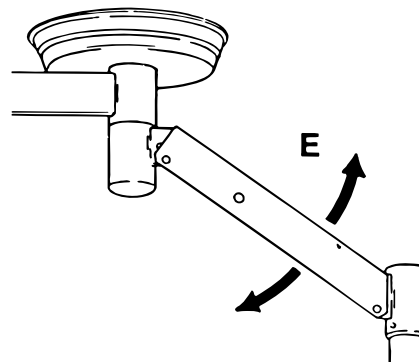
g. Use a pencil to mark the BOM with a reference line as shown in figure 2-13.

h. With the nut held captive by the pin punch, rotate the lighthead so that the pencil marks are approximately 1/8" apart. Turn the lighthead clockwise (viewed from the bottom) to increase the tension and counterclockwise to decrease the tension. In some cases it may require considerable force on the lighthead to make this adjustment.

i. Remove the pin punch and check the lighthead for proper tension. Repeat adjustment procedure if necessary. When proper adjustment has been achieved, tighten the set screws and install the chrome plug.

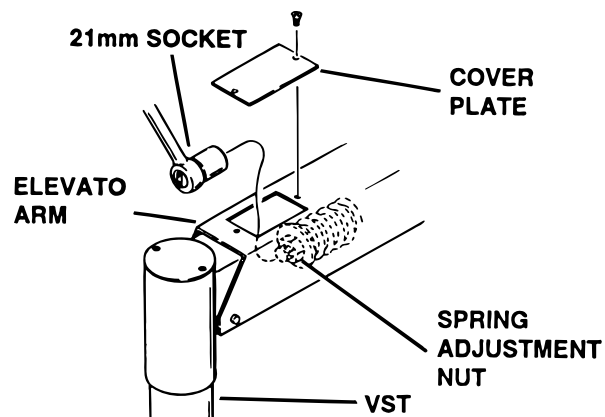
## 2-7. Elevato Arm Adjustment

a. Check the adjustment of the elevato arm for its capacity to support the lighthead through its range of vertical travel. See figure 2-14.



**Figure 2-14. Elevato Arm Travel**

b. The arm should maintain its selected position without drifting. If the arm will not stay where it is positioned, an adjustment is necessary. Refer to figure 2-15 and proceed as follows:



**Figure 2-15. Elevato Arm Adjustment**

### NOTE

Be sure the elevato arm is all the way up when turning the adjustment nut. This will relieve the spring pressure making the nut easier to turn.

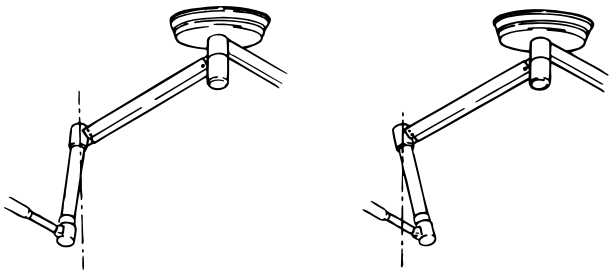
c. Remove the cover plate on the top of the elevato radial arm.

d. Using a 3/8" ratchet handle and a 21mm socket, turn the spring adjustment nut clockwise to increase the spring tension. Turn the nut counterclockwise to decrease the spring tension.

## 2-8. Elevato Arm Plumb Adjustment

a. The Vertical Support Tube should remain perpendicular to the floor throughout its range of travel.

b. Normally this adjustment is correct from the factory and should only be performed if absolutely necessary. If the Vertical Support Tube (VST) looks like either view in figure 2-16, proceed as follows:



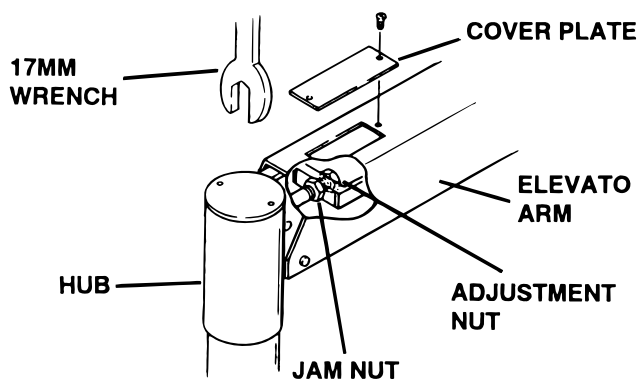
**Figure 2-16. EL Arm Plumb Check**

c. Check the plumb of the VST by placing a 9" magnetic level on the VST. Pull the EL arm down as far as it will go and rotate the lighthouse out from under and in-line with the EL arm. Note the position of the bubble on the level.

d. Rotate the lighthouse 180° under and in-line with the EL arm. Note the position of the bubble on the level.

e. It is unlikely that true plumb can be maintained at both positional extremes of the lighthouse. The object of this adjustment is to split the difference.

f. Remove the cover plate from the top of the EL arm near the ceiling mounting hub. See figure 2-17.



**Figure 2-17. EL Arm Plumb Adjustment**

## NOTE

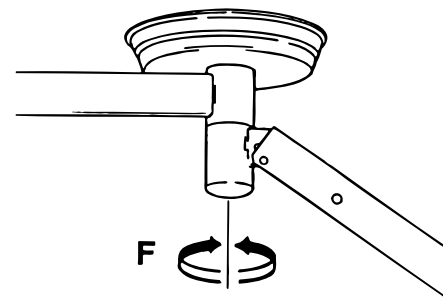
Place the lighthouse under and in-line with the EL arm and make sure the EL arm is all the way up before making the adjustment.

g. Using a 17mm wrench, loosen the inner jam nut on the Tee bolt and turn outer adjustment nut to gain the desired perpendicularity.

h. When the desired adjustment has been achieved, tighten the jam nut and replace the cover plate.

## 2-9. Radial Arm Horizontal Rotation Axis

a. Check the horizontal rotation axis tension by moving the Radial Arms through their full range of travel around the center mounting hub. Refer to figure 2-18.



**Figure 2-18.**

b. The Radial Arms should maintain their position without drifting yet move freely around the hub. Normally this adjustment is correct from the factory and does not change. If the Radial Arms drift, the most probable cause is an uneven mounting plate.

## NOTE

Recheck the mounting plate to make sure it is absolutely level. In most cases releveling the plate will solve any drifting problem.

c. If releveling the mounting plate does not correct the drift, or the Radial Arms are difficult to move, the bearing preload must be adjusted. This requires the use of special tools. Contact your SKYTRON dealer for assistance.

## 2-10. Bulb Voltage Adjustment

To insure maximum intensity and to prolong bulb life, the voltage applied to the bulbs should be  $20\text{VAC} \pm 0.2\text{V}$ . Use the following procedures to test and adjust the bulb applied voltage.

a. Remove lighthead top cover and test bulb voltage at the terminal strip inside the lighthead. Turn main power "ON" and set the Dimmer Control for the lighthead being tested to maximum intensity for the test. Output voltage (at the lighthead terminal strip) should be  $20\text{V} \pm 0.2\text{V}$ . See figure 2-19.

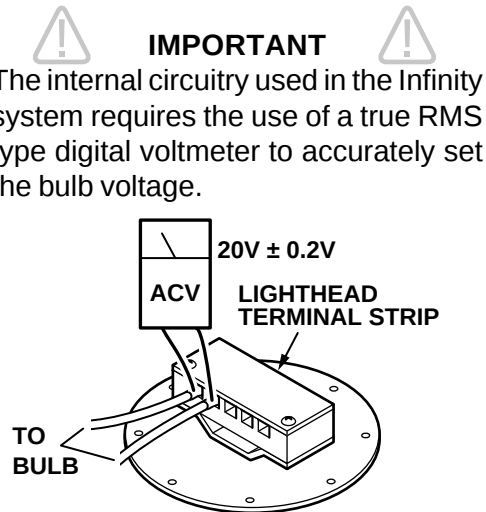


Figure 2-19. Bulb Voltage Test

### NOTE

Output voltage adjustment is done either at the terminal strips inside the wall control box (multi-tap transformer models) or on the back of the individual dimmer controls (single-tap transformer models).

b. **Multi-tap transformer** - Adjust the voltage to the lighthead on a multi-tap transformer model by changing the position of the input wire on the appropriate terminal strip inside the wall control. See figure 2-20.

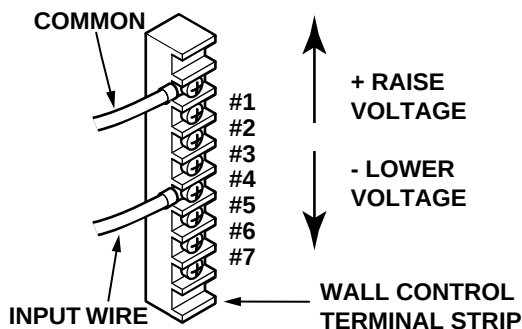


Figure 2-20. Multi-tap Transformer Voltage Adjustment

c. Each tap on the wall control terminal strip provides 0.3V difference at the lighthead terminal strip. The smaller the tap number, the higher the output. For example; with the input wire connected to tap #4, to increase output voltage connect input wire to either tap #3, #2, or #1. To decrease the output voltage connect the input wire to either tap #5, #6, or #7.

d. **Single-tap transformer** - Adjust the voltage to the lighthead on a single-tap transformer model by turning the adjuster on the back of the appropriate dimmer control in the wall control. See figure 2-21.

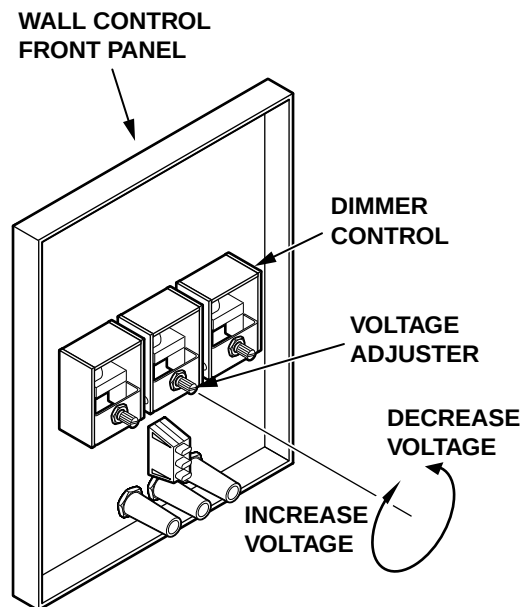


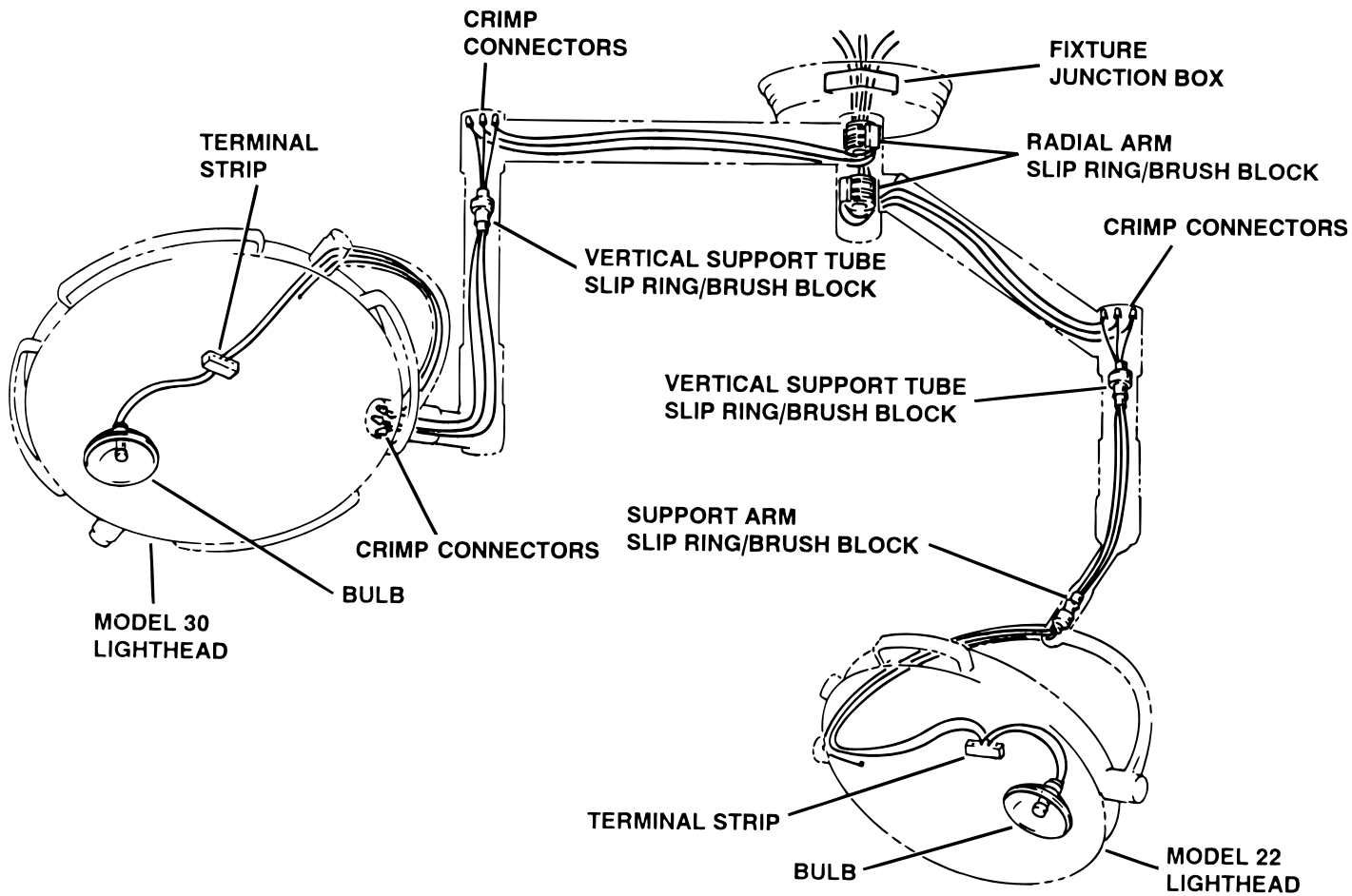
Figure 2-21. Single-tap Transformer Voltage Adjustment

e. Turn the adjuster clockwise to increase the output voltage, counterclockwise to decrease the voltage. Proper voltage at the lighthead terminal strip should be  $20\text{V} \pm 0.2\text{V}$ .

## Service

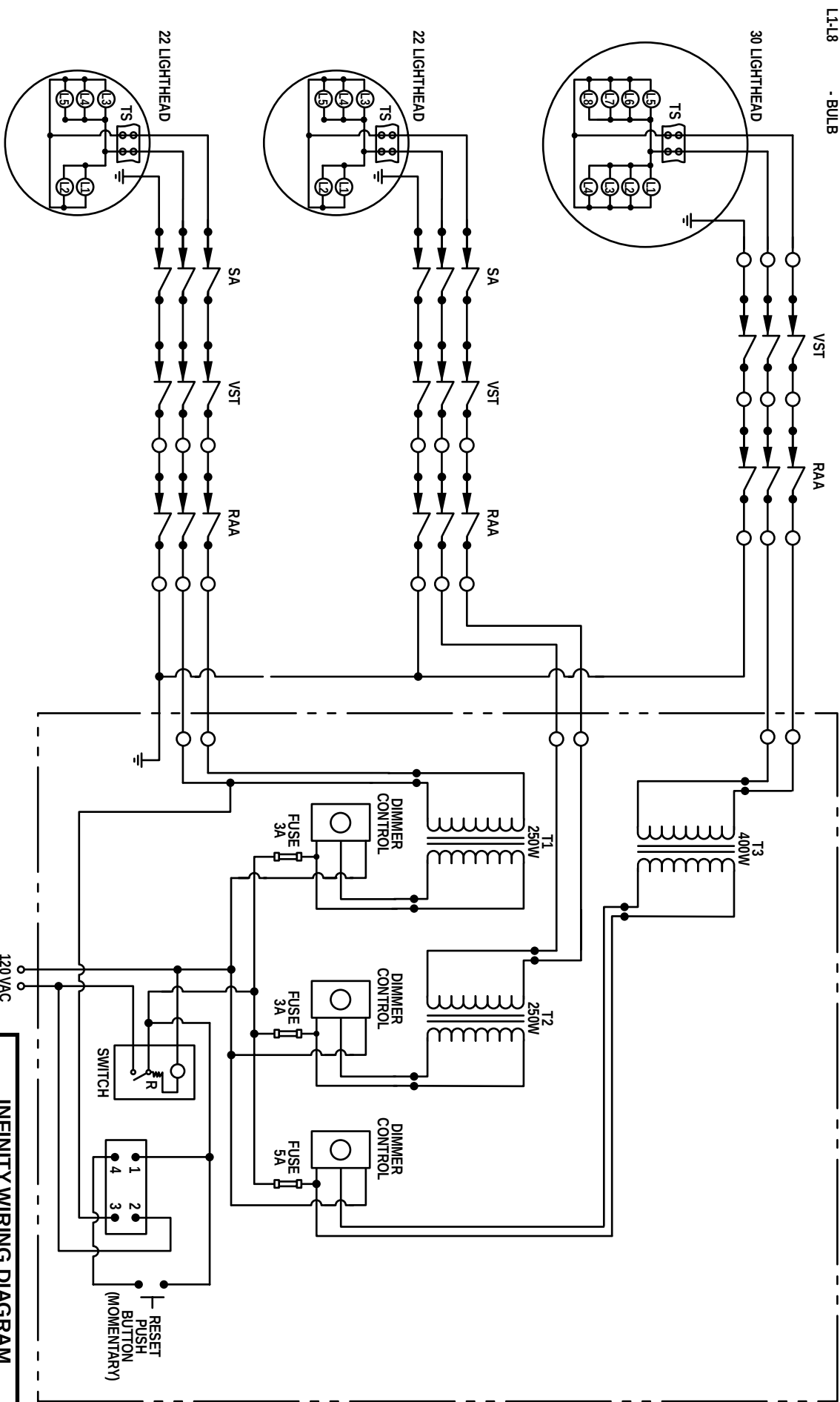
Preventative maintenance performed by SKYTRON factory trained service representatives, using authorized parts and service techniques, will assure the extended and reliable performance of your SKYTRON Surgical Light.

For factory service contact your nearest SKYTRON dealer or write: SKYTRON, 5000 - 36th St., S.E., Grand Rapids, MI 49512 / Phone (616) 957-0500.



Typical Wiring Diagram

- - CRIMP CONNECTORS
- - BRUSH BLOCK
- ↗ - SLIP RING
- T1-T3 - TRANSFORMER
- L1-L8 - BULB
- TS - TERMINAL STRIP
- SA - SUPPORT ARM
- RAA - RADIAL ARM ASSEMBLY
- VST - VERTICAL SUPPORT TUBE



MODEL IF302222B

# INFINITY WIRING DIAGRAM



## SECTION III REPLACEMENT PARTS

### INTRODUCTION

---

This section contains the exploded views and replacement parts lists for the serviceable components of the SKYTRON INFINITY Series Surgical Lighting fixtures

Each serviceable part in these exploded views is identified by a reference number. Use this number to locate necessary part information in the parts list adjacent to the exploded view.

Always use the complete SKYTRON part number and description when ordering replacement parts.

#### Abbreviations

|                     |      |
|---------------------|------|
| As Required .....   | A/R  |
| Optional .....      | opt  |
| Serial Number ..... | S.N. |

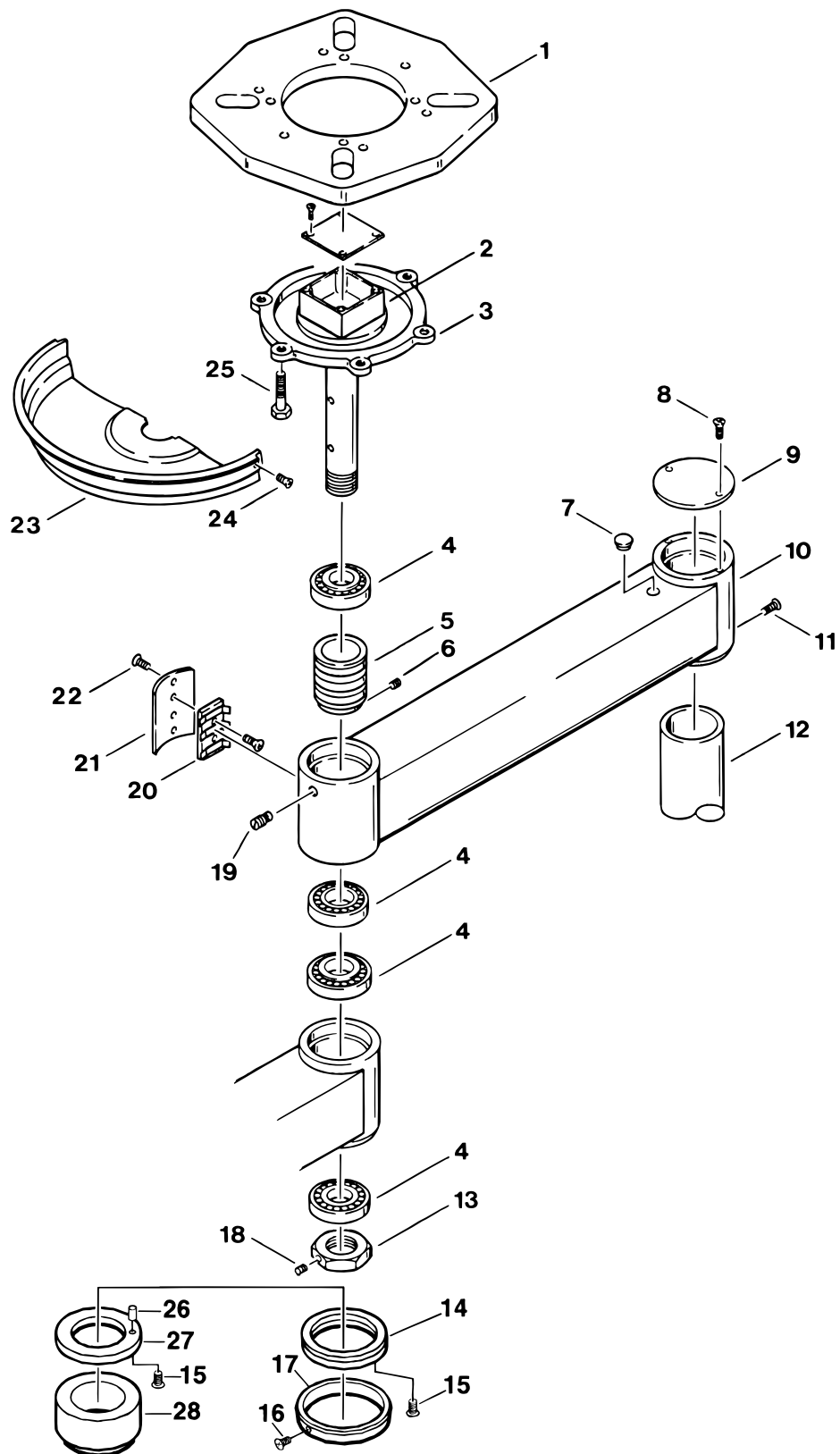
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### SECTION CONTENTS

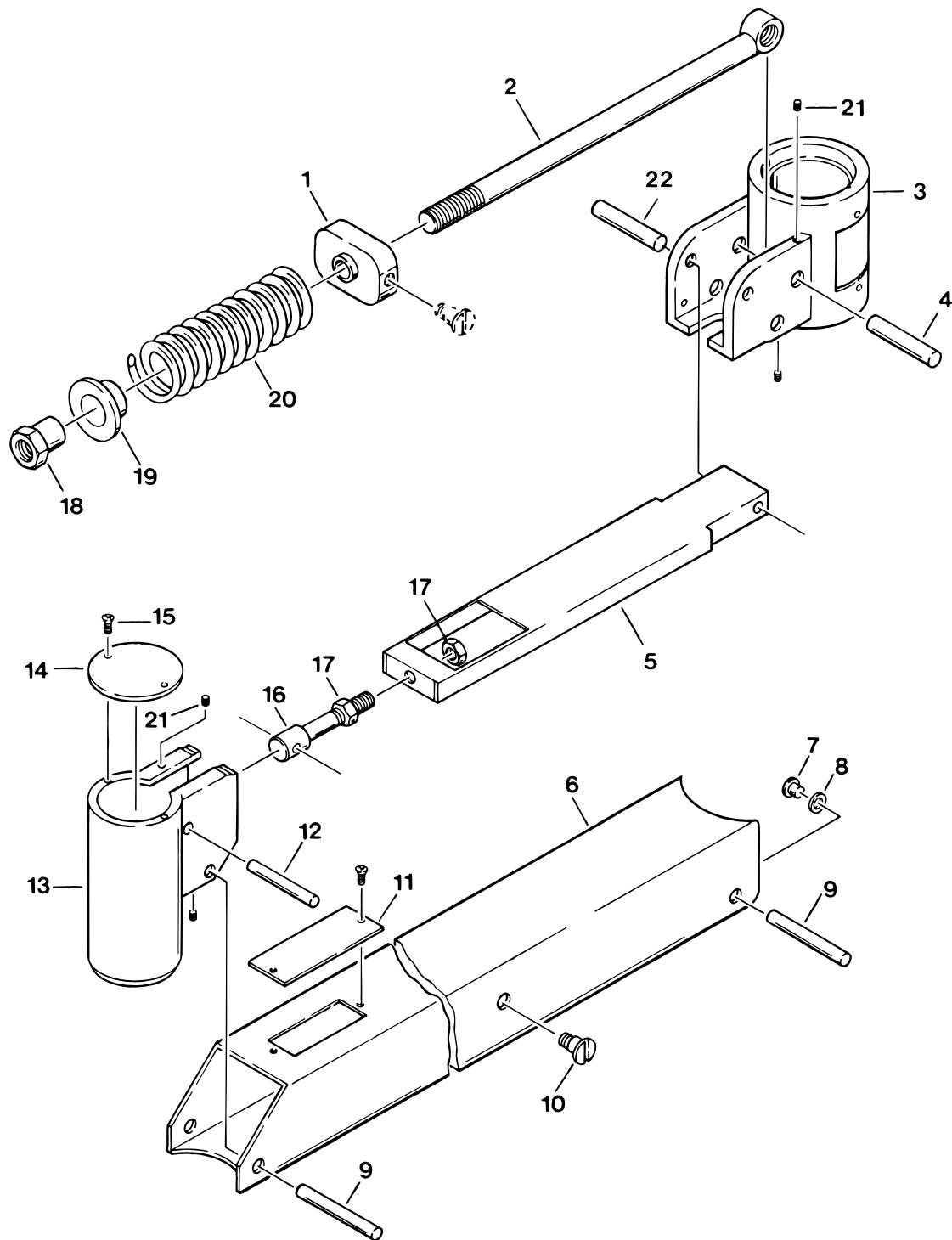
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|              |                                                      |     |
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| Figure 3-2.  | Elevato Arm Assembly .....                           | 16  |
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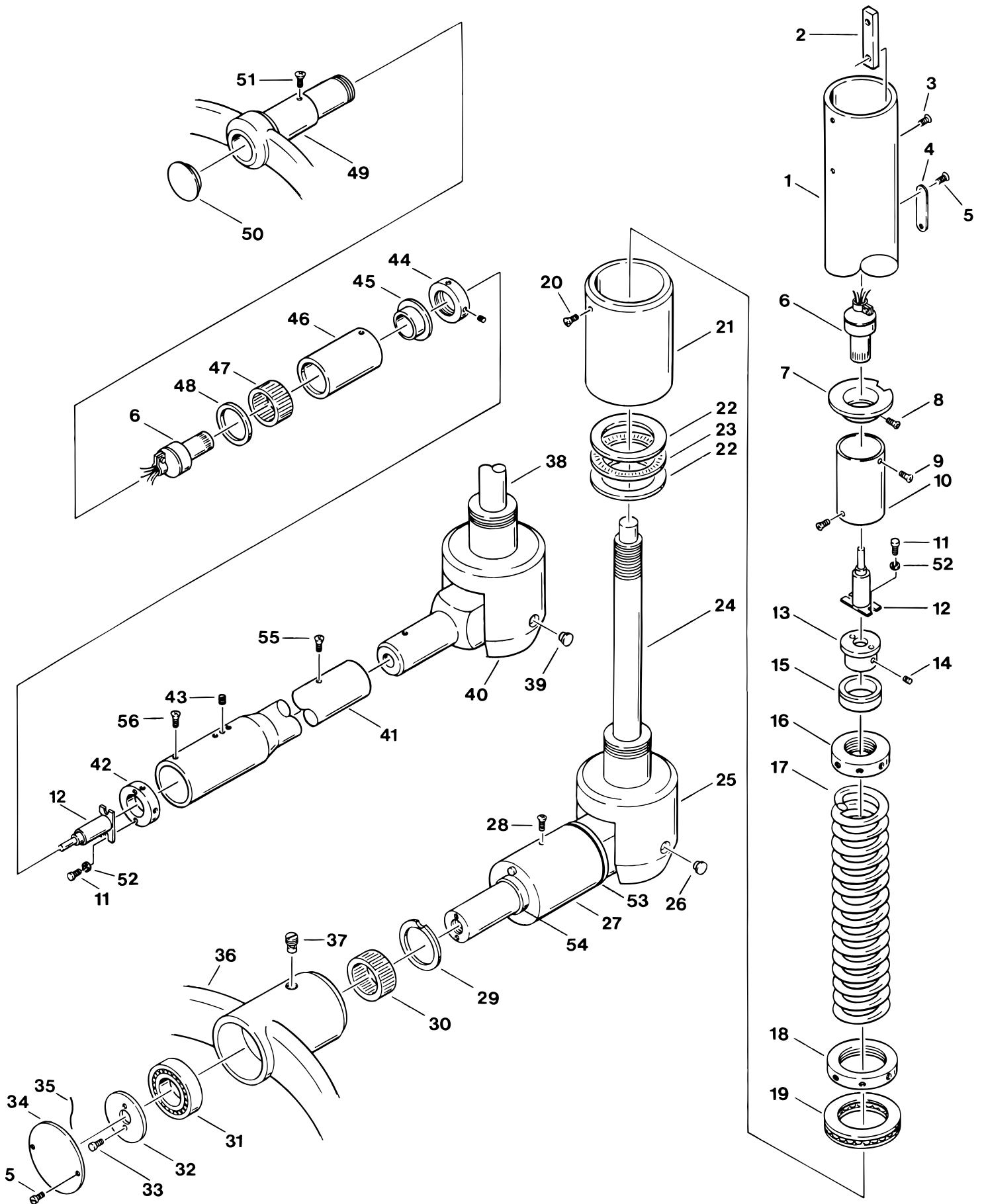
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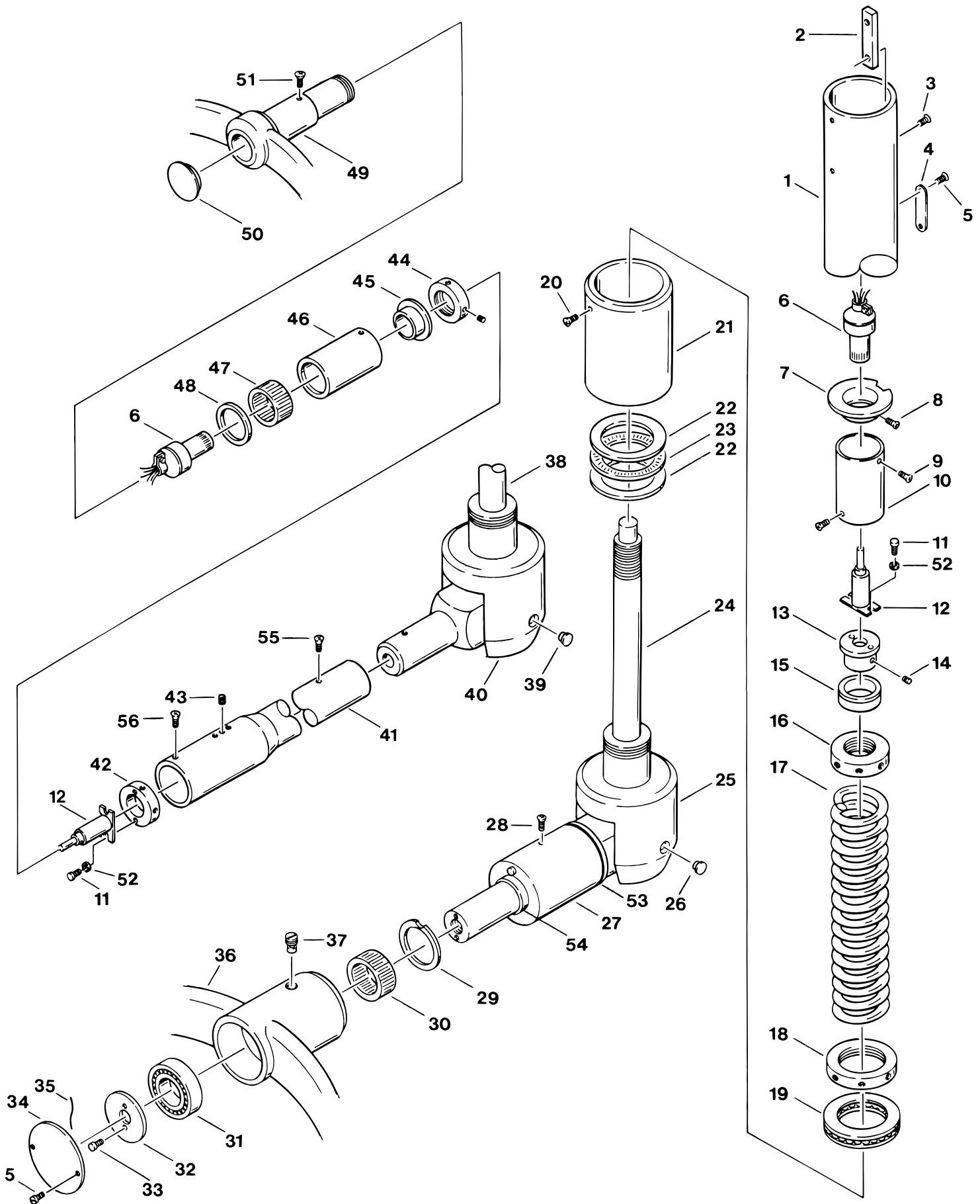
| Item | Part No.  | Description                                      | Qty. |
|------|-----------|--------------------------------------------------|------|
|      | B2-210-01 | RADIAL ARM ASSEMBLY, IN22 .....                  | A/R  |
|      | B2-210-02 | RADIAL ARM ASSEMBLY, IN22EL .....                | A/R  |
|      | B2-210-03 | RADIAL ARM ASSEMBLY, IN30 .....                  | A/R  |
|      | B2-210-04 | RADIAL ARM ASSEMBLY, dual arm .....              | A/R  |
|      | B2-210-05 | RADIAL ARM ASSEMBLY, triple arm .....            | A/R  |
| 1    | B2-010-01 | STANDARD MOUNTING PLATE .....                    | 1    |
| 2    | B2-210-06 | JUNCTION BOX .....                               | 1    |
|      | B2-210-07 | •COVER, junction box .....                       | 1    |
|      | B9-210-23 | •SCREW, junction box cover .....                 | 2    |
| 3    | B2-210-08 | SUPPORT HUB, single arm .....                    | 1    |
|      | B2-210-09 | SUPPORT HUB, dual arm .....                      | 1    |
|      | B2-210-10 | SUPPORT HUB, triple arm .....                    | 1    |
| 4    | B2-210-11 | TAPERED ROLLER BEARING .....                     | A/R  |
|      | B2-210-12 | BEARING CUP .....                                | A/R  |
| 5    | B2-210-13 | SLIP RING .....                                  | 1    |
| 6    | B2-210-14 | SET SCREW, slip ring .....                       | 1    |
| 7    | B2-210-23 | PLUG .....                                       | 1    |
| 8    | B2-210-25 | SCREW, receptacle cover .....                    | 2    |
| 9    | B2-210-24 | COVER, receptacle .....                          | 1    |
| 10   | B2-210-20 | RADIAL ARM, 27-1/2" .....                        | A/R  |
|      | B2-210-21 | RADIAL ARM, 33" .....                            | A/R  |
|      | B2-210-22 | RADIAL ARM, 38" .....                            | A/R  |
|      | B2-210-59 | RADIAL ARM, 35" (IFB) .....                      | A/R  |
|      | B2-210-60 | RADIAL ARM, 43"(IFB) .....                       | A/R  |
| 11   | B3-210-12 | VST SCREW, M6 X 12 .....                         | A/R  |
|      | B3-210-36 | VST SCREW, M6 x 14 S.N. 07970383B & L .....      | A/R  |
| 12   | B3-210-01 | VERTICAL SUPPORT TUBE .....                      | A/R  |
| 13   | B2-210-26 | NUT, retainer .....                              | 1    |
| 14   | B2-210-28 | RETAINER, hub cover .....                        | 1    |
| 15   | B2-210-29 | SCREW, hub cover retainer .....                  | 2    |
| 16   | B2-210-17 | SCREW .....                                      | A/R  |
| 17   | B2-210-30 | COVER, hub .....                                 | 1    |
| 18   | B2-210-27 | SET SCREW .....                                  | 1    |
| 19   | B2-210-19 | BRAKE SCREW .....                                | A/R  |
| 20   | B2-210-15 | BRUSH BLOCK ASSEMBLY .....                       | A/R  |
| 21   | B2-210-16 | COVER, brush block .....                         | A/R  |
| 22   | B2-210-18 | SCREW, cover mounting .....                      | A/R  |
| 23   | B2-210-31 | CEILING COVER .....                              | 1    |
|      | B9-210-44 | CEILING COVER, Castle adapter .....              | opt  |
|      | B9-210-45 | CEILING COVER, Recessed, 3/4" deep .....         | opt  |
| 24   | B2-210-32 | SCREW, ceiling cover .....                       | 2    |
|      | B9-210-59 | SCREW, self tapping, plastic ceiling cover ..... | A/R  |
| 25   | B2-010-02 | MOUNTING BOLT, 1/2-13 .....                      | 6    |
| 26   | B2-210-56 | SPACER .....                                     | 2    |
| 27   | B2-210-57 | RETAINER, hub cover .....                        | 1    |
| 28   | B2-210-58 | COVER, hub, .....                                | 1    |



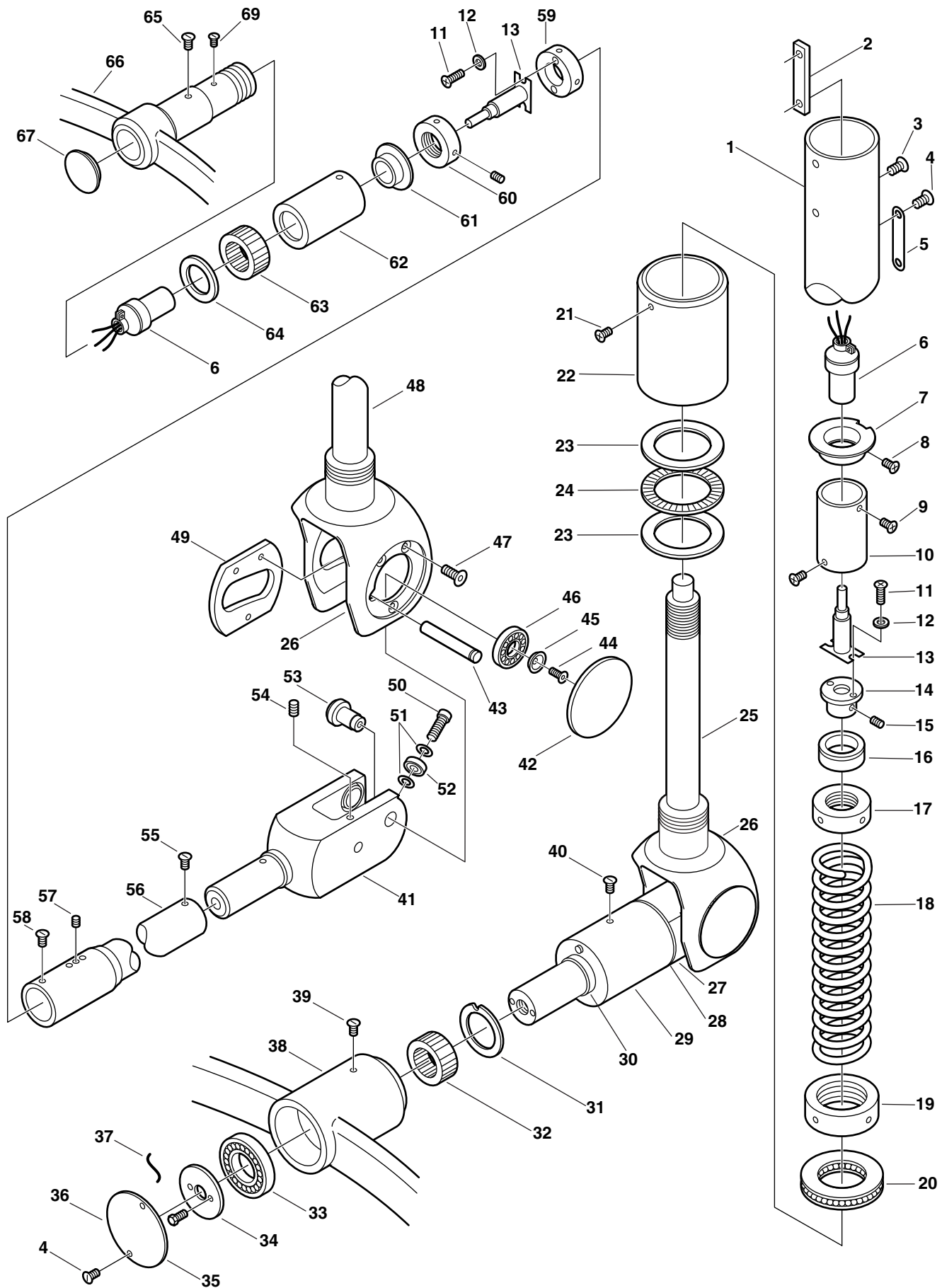
| Item | Part No.  | Description                  | Qty. |
|------|-----------|------------------------------|------|
|      | B2-210-33 | ELEVATO ARM ASSEMBLY .....   | A/R  |
| 1    | B2-210-36 | BLOCK, spring stop .....     | 1    |
| 2    | B2-210-35 | ROD, spring bolt .....       | 1    |
| 3    | B2-210-34 | HOUSING, hub .....           | 1    |
| 4    | B2-210-46 | PIN, pivot .....             | 1    |
| 5    | B2-210-45 | LINK, parallel .....         | 1    |
| 6    | B2-210-47 | HOUSING, arm .....           | 1    |
| 7    | B2-210-51 | BUSHING .....                | 4    |
| 8    | B2-210-52 | WASHER .....                 | 4    |
| 9    | B2-210-49 | PIN, pivot .....             | 2    |
| 10   | B2-210-50 | BOLT, spring stop .....      | 2    |
| 11   | B2-210-48 | COVER, adjustment .....      | 1    |
| 12   | B2-210-42 | PIN, pivot .....             | 1    |
| 13   | B2-210-40 | VST HOUSING .....            | 1    |
| 14   | B2-210-41 | COVER, housing .....         | 1    |
| 15   | B2-210-17 | SCREW .....                  | 2    |
| 16   | B2-210-43 | LINK, tee bolt .....         | 1    |
| 17   | B2-210-44 | NUT, jam .....               | 2    |
| 18   | B2-210-39 | NUT, adjustment .....        | 1    |
| 19   | B2-210-38 | COLLAR, adjustment nut ..... | 1    |
| 20   | B2-210-37 | SPRING, balance .....        | 1    |
| 21   | B9-210-24 | SCREW, set .....             | 4    |
| 22   | B2-210-55 | PIN, pivot .....             | 1    |



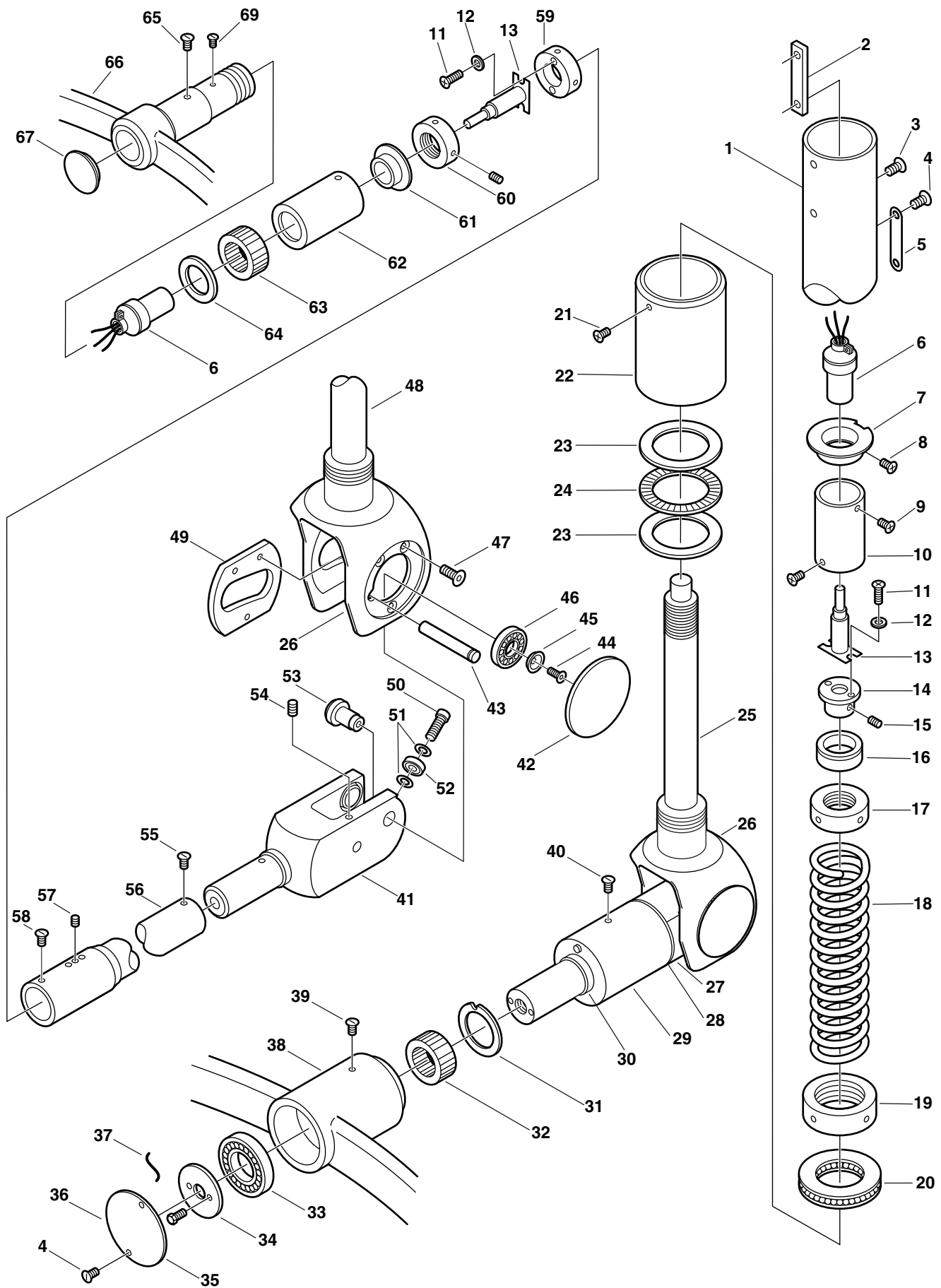
| Item | Part No.     | Description                                  | Qty. |
|------|--------------|----------------------------------------------|------|
|      | B3-220-01    | BALANCE MECHANISM, Model 22 complete .....   | A/R  |
|      | B3-230-01    | BALANCE MECHANISM, Model 30 complete .....   | A/R  |
|      | B3-230-01-AR | BALANCE MECHANISM, Model 30AR complete ..... | A/R  |
|      | B3-230-01-TV | BALANCE MECHANISM, Model 30TV complete ..... | A/R  |
| 1    | B3-210-01    | VERTICAL SUPPORT TUBE .....                  | A/R  |
| 2    | B3-210-16    | •KEY, stop .....                             | 1    |
| 3    | B9-210-25    | •SCREW, M3x8 .....                           | 2    |
| 4    | B3-210-02    | COVER, adjustment slot .....                 | 1    |
| 5    | B3-010-09    | SCREW, M3x5 .....                            | A/R  |
| 6    | B3-210-05    | BRUSH BLOCK .....                            | A/R  |
| 7    | B3-210-06    | MOUNT, brush block .....                     | 1    |
| 8    | B9-210-27    | SCREW .....                                  | 1    |
| 9    | B9-210-30    | SCREW .....                                  | 1    |
| 10   | B3-210-08    | ENCLOSURE, brush block/slip ring .....       | 1    |
| 11   | B9-210-28    | SCREW .....                                  | A/R  |
| 12   | B3-210-04    | SLIP RING .....                              | 1    |
| 13   | B3-210-03    | MOUNT, slip ring .....                       | 1    |
| 14   | B9-210-29    | SCREW, set .....                             | 1    |
| 15   | B3-210-07    | INSULATOR ASSEMBLY .....                     | 1    |
|      | B3-210-07-1  | •INSULATOR .....                             | 1    |
| 16   | B3-210-09    | NUT, spring retainer .....                   | 1    |
| 17   | B3-220-04    | BALANCE SPRING, Model 22 .....               | 1    |
|      | B3-230-04    | BALANCE SPRING, Model 30 .....               | 1    |
|      | B3-230-16    | SPRING LINER, Model 30AR and 30TV .....      | 1    |
| 18   | B3-210-10    | NUT .....                                    | 1    |
| 19   | B3-210-11    | BEARING .....                                | 1    |
| 20   | B3-210-12    | VST SCREW, M6x12 .....                       | A/R  |
|      | B3-210-17    | VST SCREW, M6x10 .....                       | A/R  |
| 21   | B3-210-13    | SLEEVE, VST .....                            | 1    |
| 22   | B3-210-14    | WASHER, needle bearing .....                 | 2    |
| 23   | B3-210-15    | BEARING, needle .....                        | 1    |
| 24   | B3-230-05    | SHAFT, main spring, Model 30 .....           | 1    |
| 25   | B3-230-06    | BOM HOUSING, lower, Model 30 .....           | 1    |
| 26   | B3-230-07    | PLUG, Model 30 .....                         | 1    |
| 27   | B3-230-08    | ARM, yoke support, Model 30 .....            | 1    |
| 28   | B9-210-31    | SCREW, M6x18 .....                           | A/R  |
| 29   | B3-230-09    | SPACER, BOM, Model 30 .....                  | 130  |
| 30   | B3-230-10    | BEARING, needle, Model 30 .....              | 1    |
| 31   | B3-230-12    | BEARING, BOM outer, Model 30 .....           | 1    |
| 32   | B3-230-13    | PLATE, BOM retainer, Model 30 .....          | 1    |
| 33   | B3-040-25    | BOLT, BOM retainer plate .....               | 2    |
| 34   | B1-230-16    | COVER, yoke wire, Model 30 .....             | 1    |
| 35   | B3-040-30    | SAFETY WIRE .....                            | A/R  |
| 36   | B1-230-05    | YOKE, Model 30 .....                         | 1    |
| 37   | B1-230-19    | BRAKE SCREW .....                            | 1    |
| 38   | B3-220-05    | SHAFT, main spring, Model 22 .....           | 1    |
| 39   | B3-220-07    | PLUG, model 22 .....                         | 1    |
| 40   | B3-220-06    | HOUSING, lower BOM, Model 22 .....           | 1    |



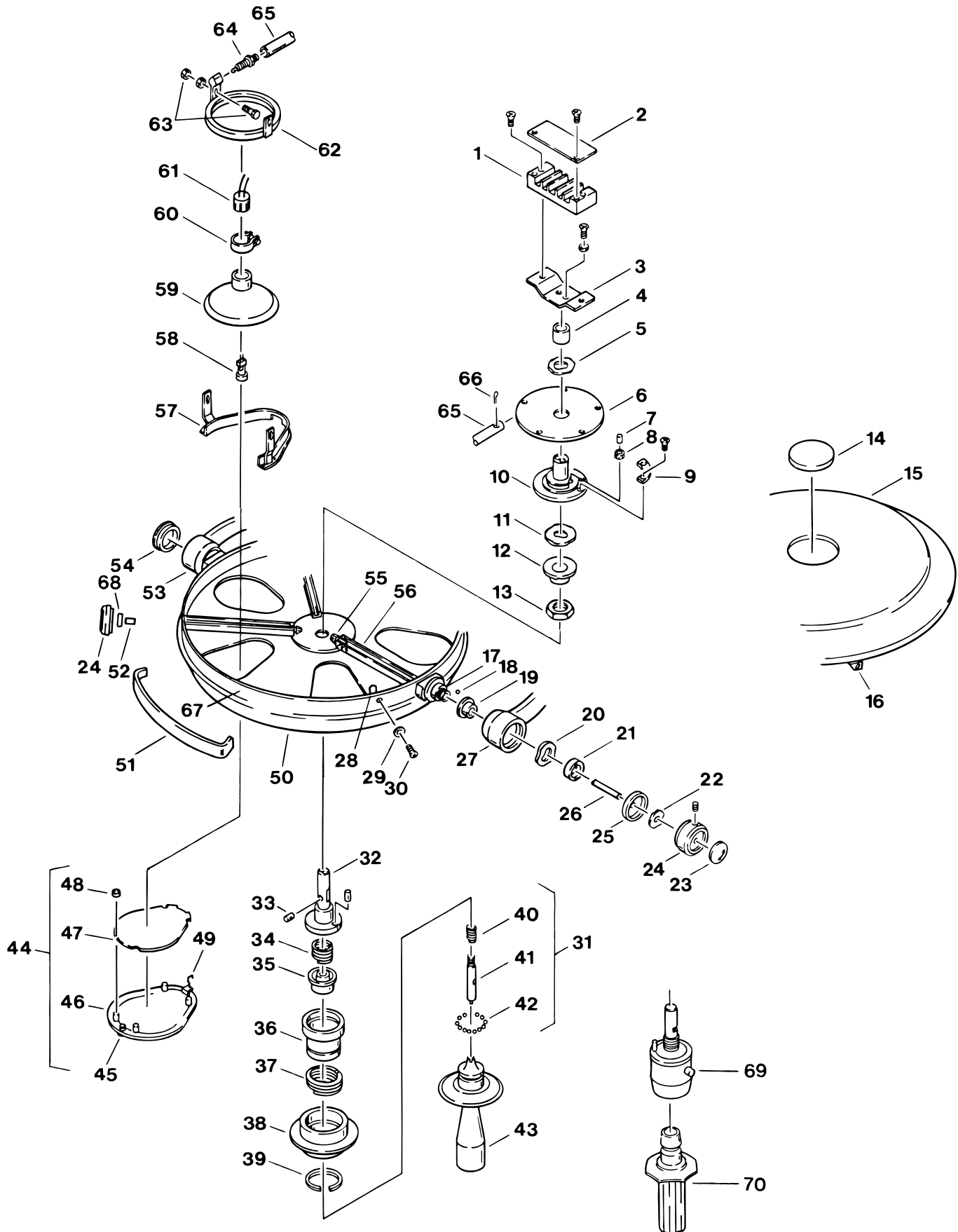
| Item | Part No.  | Description                       | Qty. |
|------|-----------|-----------------------------------|------|
| 41   | B3-220-08 | ARM, yoke support, Model 22 ..... | 1    |
| 42   | B3-220-09 | MOUNT, slip ring, Model 22 .....  | 1    |
| 43   | B9-210-32 | PLUG, chrome .....                | A/R  |
| 44   | B3-220-10 | NUT, Model 22 .....               | 1    |
| 45   | B3-220-11 | BUSHING, Model 22 .....           | 1    |
| 46   | B3-220-12 | BEARING BODY, Model 22 .....      | 1    |
| 47   | B3-220-13 | BEARING, needle, Model 22 .....   | 1    |
| 48   | B3-220-14 | WASHER, wear, Model 22 .....      | 1    |
| 49   | B1-220-05 | YOKE, Model 22 .....              | 1    |
| 50   | B1-220-18 | COVER, yoke wire, Model 22 .....  | 1    |
| 51   | B9-210-33 | SCREW .....                       | 1    |
| 52   | B9-210-69 | WASHER .....                      | 4    |
| 53   | B3-230-14 | SPACER .....                      | 1    |
| 54   | B3-230-15 | RACE, bearing .....               | 1    |
| 55   | B3-220-16 | SCREW, phillips hd., M4x8 .....   | A/R  |
| 56   | B3-220-15 | SCREW, phillips hd., M4x6 .....   | A/R  |



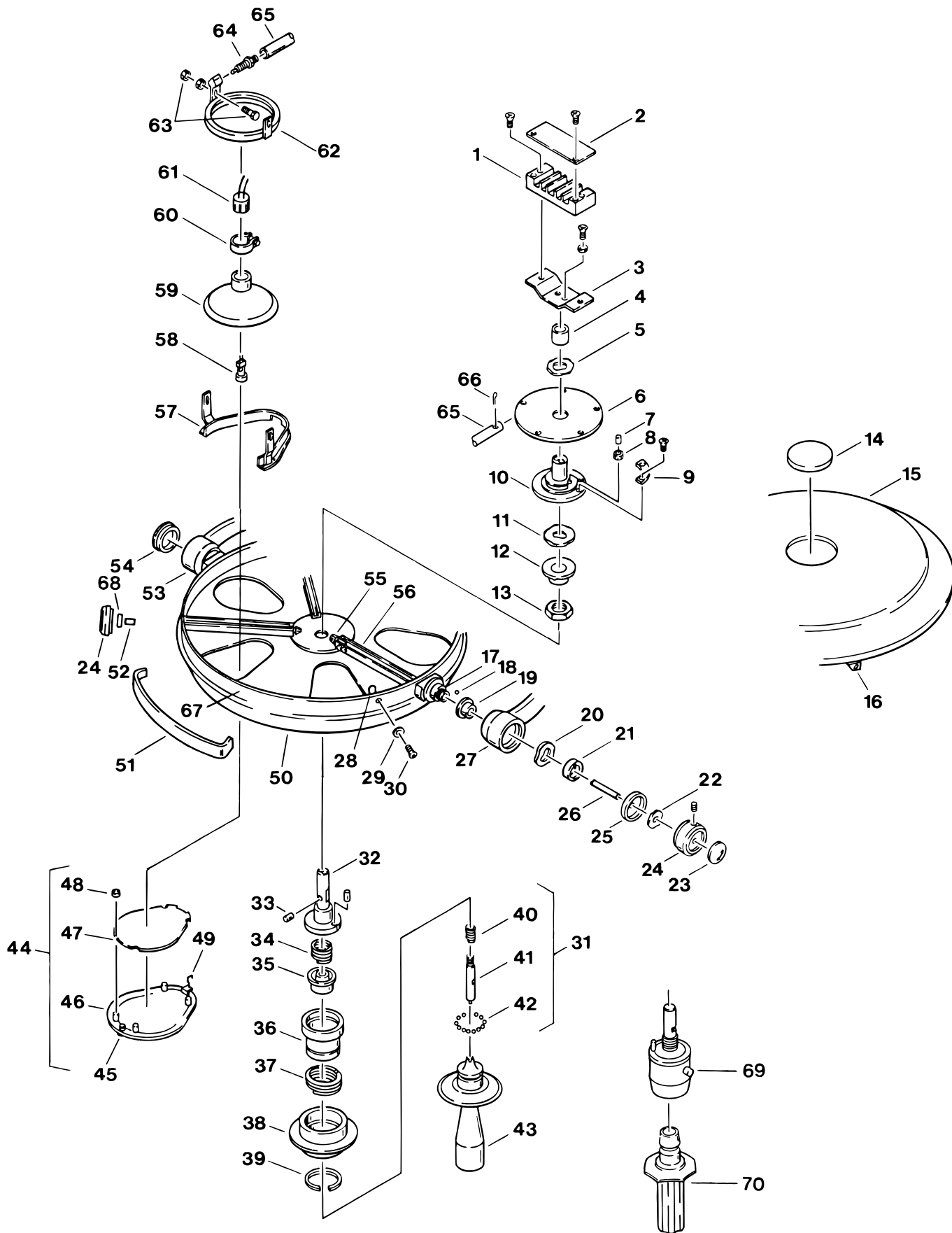
| Item | Part No.     | Description                                                      | Qty. |
|------|--------------|------------------------------------------------------------------|------|
|      | B3-220-01-B1 | BALANCE MECHANISM, Model IF22B complete S.N. 09970541B & L ..... | A/R  |
|      | B3-220-01-B  | BALANCE MECHANISM, Model IF22B complete S.N. 09970540B & P ..... | A/R  |
|      | B3-230-01-B1 | BALANCE MECHANISM, Model IF30B complete S.N. 09970092B & L ..... | A/R  |
|      | B3-230-01-B  | BALANCE MECHANISM, Model IF30B complete S.N. 09970091B & P ..... | A/R  |
| 1    | B3-210-01    | VERTICAL SUPPORT TUBE .....                                      | A/R  |
| 2    | B3-210-16    | •KEY, stop .....                                                 | 1    |
| 3    | B9-210-25    | •SCREW, M3x8 .....                                               | 2    |
| 4    | B3-010-09    | SCREW, M3x5 .....                                                | A/R  |
| 5    | B3-210-02    | COVER, adjustment slot .....                                     | 1    |
| 6    | B3-210-05    | BRUSH BLOCK .....                                                | A/R  |
| 7    | B3-210-06    | MOUNT, brush block .....                                         | 1    |
| 8    | B9-210-27    | SCREW, flat head, M3x12 .....                                    | 1    |
| 9    | B9-210-30    | SCREW, self tapping .....                                        | 2    |
| 10   | B3-210-08    | ENCLOSURE, brush block/slip ring .....                           | 1    |
| 11   | B9-210-28    | SCREW, pan head, M4x6 .....                                      | A/R  |
| 12   | B9-210-69    | WASHER .....                                                     | 4    |
| 13   | B3-210-04    | SLIP RING .....                                                  | 1    |
| 14   | B3-210-03    | MOUNT, slip ring .....                                           | 1    |
| 15   | B9-210-29    | SCREW, set, M4x5 .....                                           | 2    |
| 16   | B3-210-07    | INSULATOR ASSEMBLY .....                                         | 1    |
|      | B3-210-07-1  | •INSULATOR .....                                                 | 1    |
| 17   | B3-220-18-1  | NUT, spring retainer, Model IF22B S.N. 09970541B & L .....       | 1    |
|      | B3-220-18    | NUT, spring retainer, Model IF22B S.N. 09970540B & P .....       | 1    |
|      | B3-230-18    | NUT, spring retainer, Model IF30B .....                          | 1    |
| 18   | B3-220-04-B1 | BALANCE SPRING, Model IF22B S.N. 09970541B & L .....             | 1    |
|      | B3-220-04-B  | BALANCE SPRING, Model IF22B S.N. 09970540B & P .....             | 1    |
|      | B3-230-04-B1 | BALANCE SPRING, Model IF30B S.N. 09970092B & L .....             | 1    |
|      | B3-230-04-B  | BALANCE SPRING, Model IF30B S.N. 09970091B & P .....             | 1    |
| 19   | B3-210-10    | NUT .....                                                        | 1    |
| 20   | B3-210-11    | BEARING .....                                                    | 1    |
| 21   | B3-210-12    | VST SCREW, M6x12 .....                                           | A/R  |
|      | B3-210-17    | VST SCREW, M6x10 .....                                           | A/R  |
| 22   | B3-210-13    | SLEEVE, VST .....                                                | 1    |
| 23   | B3-210-14    | WASHER, needle bearing .....                                     | 2    |
| 24   | B3-210-15    | BEARING, needle .....                                            | 1    |
| 25   | B3-230-05-B1 | SHAFT, main spring, Model IF30B S.N. 09970092B & L .....         | 1    |
|      | B3-230-05-B  | SHAFT, main spring, Model IF30B S.N. 09970091B & P .....         | 1    |
| 26   | B3-210-35    | BOM HOUSING, lower .....                                         | 1    |
|      | B3-210-37    | BUSHING, spring shaft .....                                      | 2    |
| 27   | B3-230-17-1  | MOUNTING STUB, model IF 30B S.N. 09970092B & L .....             | 1    |
|      | B3-230-17    | MOUNTING STUB, model IF 30B S.N. 09970091B & P .....             | 1    |
| 28   | B3-230-14    | SPACER .....                                                     | 1    |
| 29   | B3-230-08-B  | ARM, yoke support, Model IF30B .....                             | 1    |
| 30   | B3-230-15    | RACE, bearing .....                                              | 1    |
| 31   | B3-230-09    | SPACER, BOM, Model 30 .....                                      | 1    |
| 32   | B3-230-10    | BEARING, needle, Model 30 .....                                  | 1    |
| 33   | B3-230-12    | BEARING, BOM outer, Model 30 .....                               | 1    |
| 34   | B3-230-13    | PLATE, BOM retainer, Model 30 .....                              | 1    |
| 35   | B3-040-25    | BOLT, BOM retainer plate .....                                   | 2    |
| 36   | B1-230-16    | COVER, yoke wire, Model 30 .....                                 | 1    |



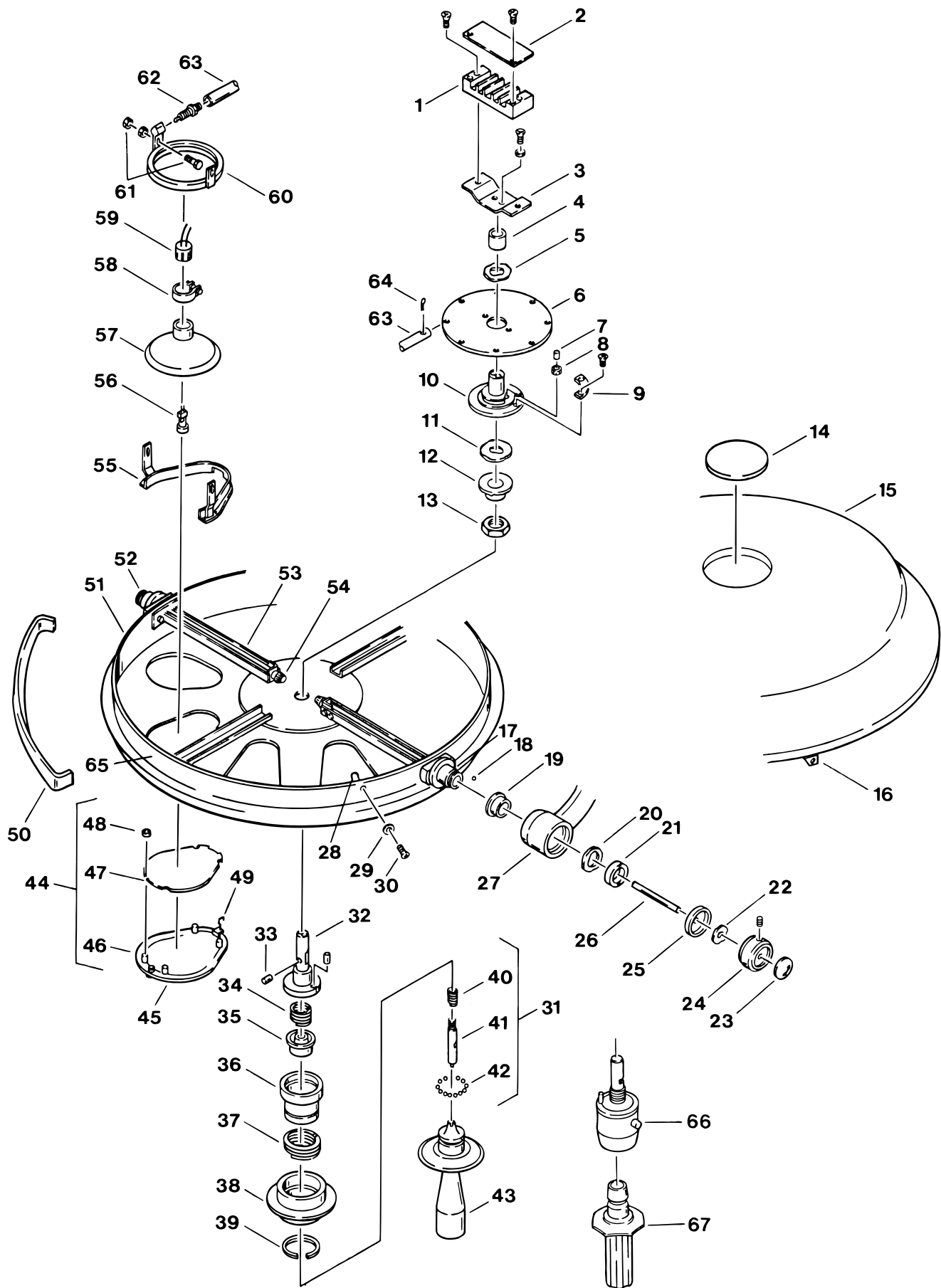
| Item | Part No.     | Description                                                    | Qty. |
|------|--------------|----------------------------------------------------------------|------|
| 37   | B3-040-30    | SAFETY WIRE .....                                              | A/R  |
| 38   | B1-230-05    | YOKE, Model 30 .....                                           | 1    |
| 39   | B1-230-19    | BRAKE SCREW .....                                              | 1    |
| 40   | B9-210-78    | SCREW, M6x12 .....                                             | A/R  |
| 41   | B3-220-17-B1 | MOUNTING, STUB, Model IF22B S.N. 09970541B & L .....           | 1    |
|      | B3-220-17-B  | MOUNTING, STUB, Model IF22B S.N. 09970540B & P .....           | 1    |
| 42   | B3-210-28    | COVER, side .....                                              | 2    |
| 43   | B3-210-29    | PIN, .....                                                     | 1    |
| 44   | B9-210-79    | SCREW, ctsk. allen head, M5x10 .....                           | 2    |
| 45   | B3-210-30    | RETAINER, bearing .....                                        | 2    |
| 46   | B3-210-31    | BEARING .....                                                  | 2    |
| 47   | B9-210-80    | SCREW, ctsk. allen head .....                                  | 6    |
| 48   | B3-220-05-B1 | SHAFT, main spring, model IF22B S.N. 09970541B & L .....       | 1    |
|      | B3-220-05-B  | SHAFT, main spring, model IF22B S.N. 09970540B & P .....       | 1    |
| 49   | B3-220-19-1  | GUIDE, bearing, left, model IF22B S.N. 09970541B & L .....     | 1    |
|      | B3-220-19    | GUIDE, bearing, left, model IF22B S.N. 09970540B & P .....     | 1    |
|      | B3-230-19-1  | GUIDE, bearing, left, model IF30B S.N. 09970092B & L .....     | 1    |
|      | B3-230-19    | GUIDE, bearing, left, model IF30B S.N. 09970091B & P .....     | 1    |
|      | B3-220-20-1  | GUIDE, bearing, right, model IF22B S.N. 09970541B & L .....    | 1    |
|      | B3-220-20    | GUIDE, bearing, right, model IF22B S.N. 09970540B & P .....    | 1    |
|      | B3-230-20-1  | GUIDE, bearing, right, model IF30B S.N. 09970092B & L .....    | 1    |
|      | B3-230-20    | GUIDE, bearing, right, model IF30B S.N. 09970091B & P--- ..... | 1    |
| 50   | B9-210-81    | SCREW, allen hd. M6x25 .....                                   | 2    |
| 51   | B3-210-32    | WASHER, bearing .....                                          | 4    |
| 52   | B3-210-33    | BEARING .....                                                  | 2    |
| 53   | B3-210-34    | PIN, pivot .....                                               | 2    |
| 54   | B9-210-82    | SCREW. set .....                                               | 1    |
| 55   | B3-220-16    | SCREW, phillips hd., M4x8 .....                                | A/R  |
| 56   | B3-220-08    | ARM, yoke support, Model 22 .....                              | 1    |
| 57   | B9-210-32    | PLUG, chrome .....                                             | A/R  |
| 58   | B3-220-15    | SCREW, phillips hd., M4x6 .....                                | A/R  |
| 59   | B3-220-09    | MOUNT, slip ring, Model 22 .....                               | 1    |
| 60   | B3-220-10    | NUT, Model 22 .....                                            | 1    |
| 61   | B3-220-11    | BUSHING, Model 22 .....                                        | 1    |
| 62   | B3-220-12    | BEARING BODY, Model 22 .....                                   | 1    |
| 63   | B3-220-13    | BEARING, needle, Model 22 .....                                | 1    |
| 64   | B3-220-14    | WASHER, wear, Model 22 .....                                   | 1    |
| 65   | B9-210-33    | SCREW .....                                                    | 1    |
| 66   | B1-220-05    | YOKE, Model 22 .....                                           | 1    |
| 67   | B1-220-18    | COVER, yoke wire, Model 22 .....                               | 1    |
| 68   | B3-230-26    | WASHER, Model IF30B S.N. 09970092B & L .....                   | 1    |
| 69   | B3-220-21    | SCREW .....                                                    | 1    |



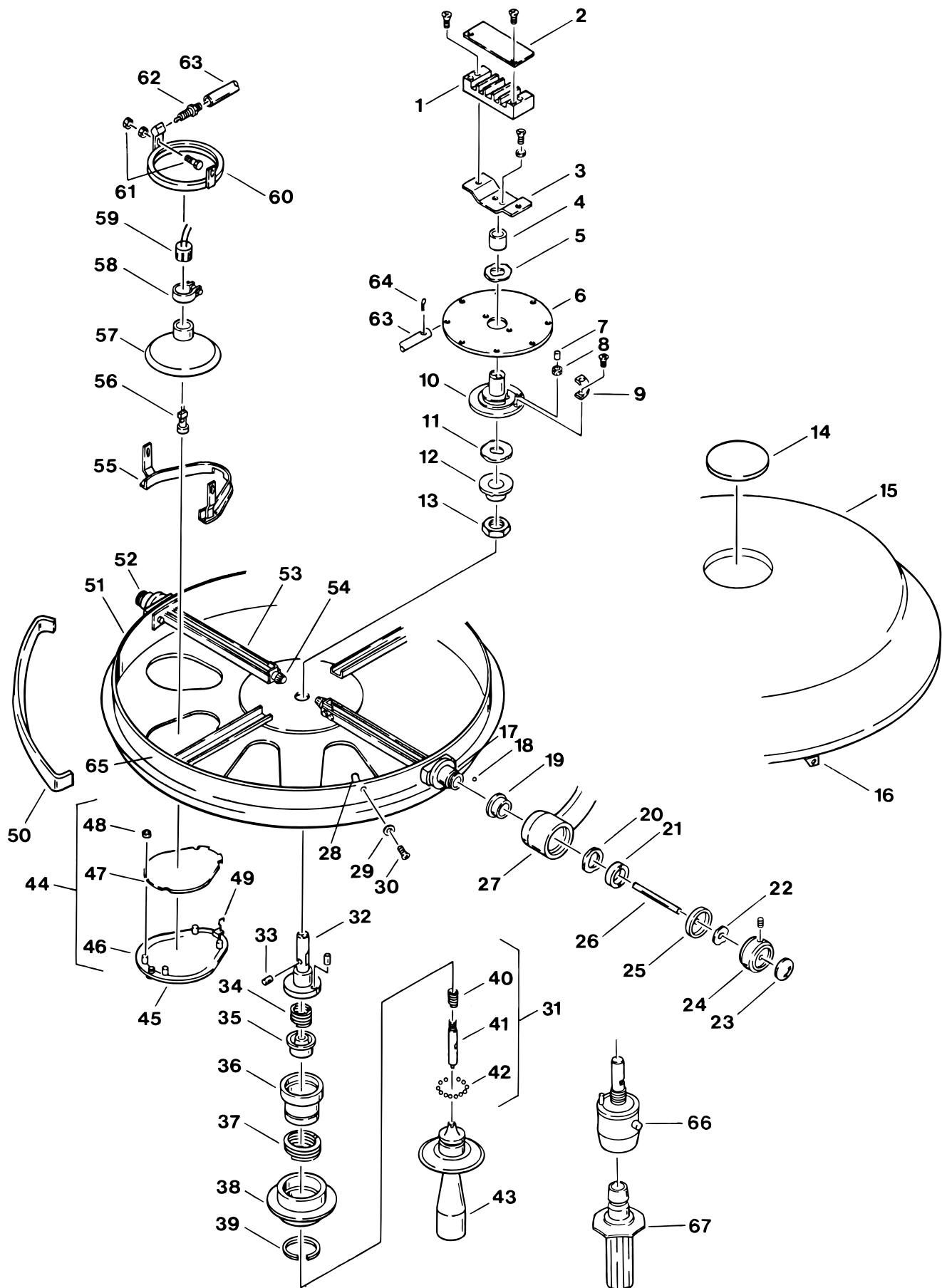
| Item | Part No.    | Description                                             | Qty. |
|------|-------------|---------------------------------------------------------|------|
|      | B1-220-01-2 | MODEL IF22 LIGHTHEAD COMPLETE .....                     | A/R  |
|      | B1-220-01   | MODEL IN22 LIGHTHEAD COMPLETE .....                     | A/R  |
| 1    | B1-210-34   | TERMINAL STRIP .....                                    | 1    |
|      | B9-210-34   | SCREW, terminal strip mounting .....                    | 2    |
| 2    | B1-210-35   | •COVER, terminal strip .....                            | 1    |
|      | B9-210-35   | •SCREW, terminal strip cover .....                      | 2    |
| 3    | B1-210-33   | BRACKET, terminal strip mounting .....                  | 1    |
|      | B9-210-36   | SCREW, bracket mounting .....                           | 2    |
| 4    | B1-210-31   | BUSHING .....                                           | 1    |
| 5    | B1-210-32   | WASHER, wave .....                                      | 1    |
| 6    | B1-220-07   | FOCUS RING ASSEMBLY .....                               | 1    |
| 7    | B1-210-30   | PIN .....                                               | 1    |
| 8    | B1-210-29   | GEAR .....                                              | 1    |
| 9    | B1-210-28   | SEGMENT, gear .....                                     | 1    |
|      | B9-210-37   | SCREW, gear segment mounting .....                      | 2    |
| 10   | B1-210-27   | MOUNT, gear reduction .....                             | 1    |
| 11   | B1-210-26   | WASHER, wave .....                                      | 1    |
| 12   | B1-210-25   | GEAR .....                                              | 1    |
| 13   | B1-210-23   | NUT .....                                               | 1    |
| 14   | B1-220-16   | VENT, top cover .....                                   | 1    |
| 15   | B1-220-24   | TOP COVER, IF22 .....                                   | 1    |
|      | B1-220-22   | TOP COVER, S.N.05930194&L, IN22 .....                   | 1    |
|      | B1-220-03   | TOP COVER, S.N.05930193&P, IN22 .....                   | 1    |
| 16   | B1-210-37   | RETAINER, top cover, S.N.05930193&P .....               | 2    |
|      | B1-210-38   | RETAINER, top cover, w/screw hole, S.N.05930193&P ..... | 1    |
| 17   | B1-220-09   | TRUNNION (w/stop) .....                                 | 1    |
|      | B1-220-09-1 | TRUNNION (w/stop) IF22B Models .....                    | 1    |
|      | B9-210-39   | BOLT, trunnion mounting .....                           | 2    |
| 18   | B1-220-11   | BALL .....                                              | 1    |
| 19   | B1-220-12   | BUSHING .....                                           | 2    |
| 20   | B1-220-13   | WASHER, wave .....                                      | 2    |
| 21   | B1-220-14   | NUT .....                                               | 2    |
| 22   | B1-210-42   | WASHER, wave .....                                      | 2    |
| 23   | B1-210-44   | LABEL, focus control .....                              | 2    |
| 24   | B1-210-43   | KNOB, focus w/set screw .....                           | 2    |
| 25   | B1-210-41   | PLATE .....                                             | 2    |
| 26   | B1-220-15   | SHAFT, focus .....                                      | 2    |
| 27   | B1-220-05   | YOKE, (Model 22) .....                                  | 1    |
| 28   | B1-210-39   | LATCH, top cover, S.N.05930193&P .....                  | 3    |
| 29   | B1-010-21   | WASHER, top cover .....                                 | A/R  |
| 30   | B1-010-14   | SCREW, top cover .....                                  | A/R  |
| 31   | B1-210-11   | C.F. ENGAGEMENT HEAD ASSEMBLY, IN Models .....          | 1    |
| 32   | B1-210-19   | •SUPPORT, IN Models .....                               | 1    |
| 33   | B1-210-20   | •PIN, IN Models .....                                   | 1    |
| 34   | B1-210-18   | •SPRING, IN Models .....                                | 1    |
| 35   | B1-210-17   | •RETAINER, IN Models .....                              | 1    |
| 36   | B1-210-16   | •COLLAR, engagement, IN Models .....                    | 1    |



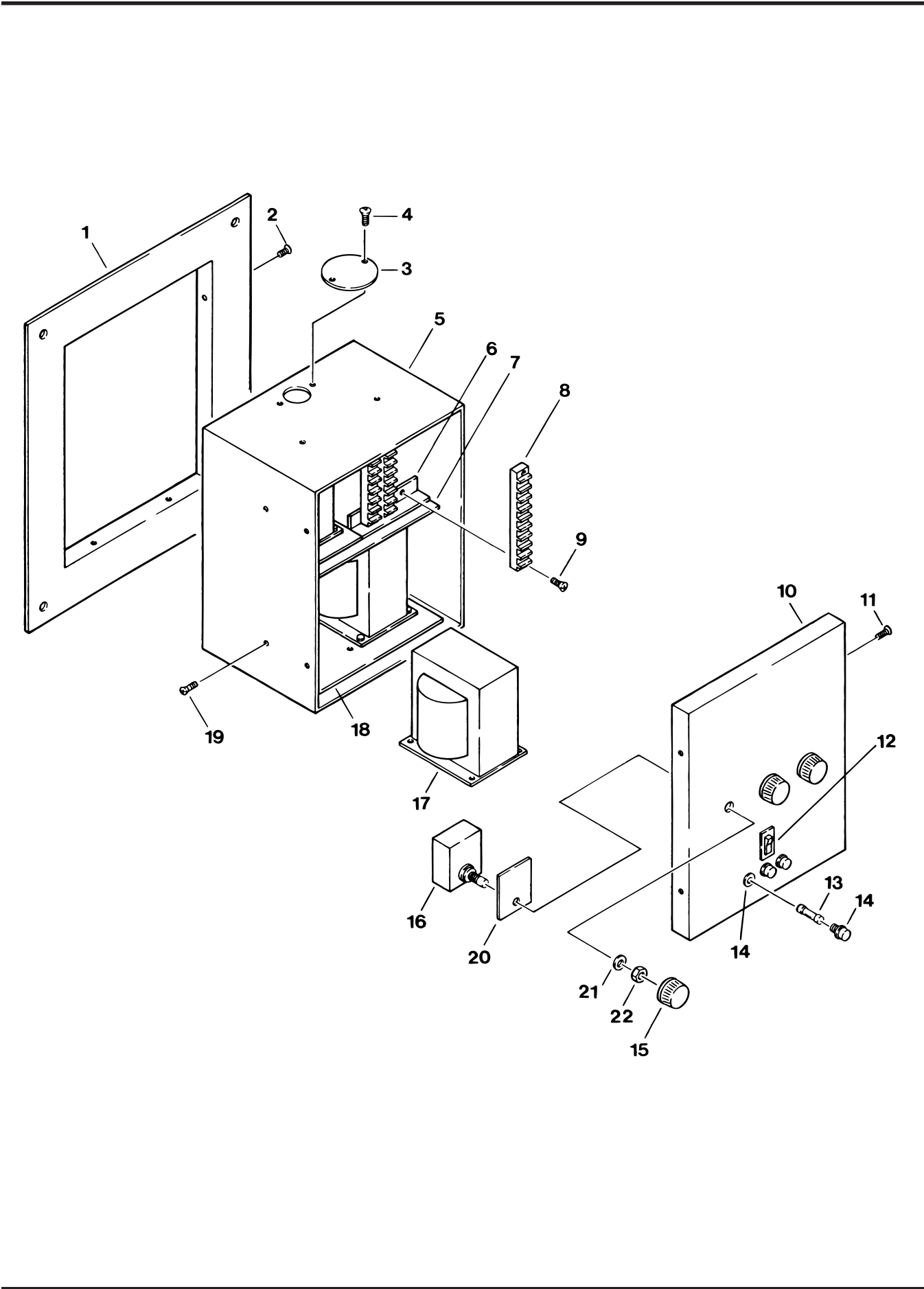
| Item | Part No.    | Description                                              | Qty. |
|------|-------------|----------------------------------------------------------|------|
| 37   | B1-210-15   | •SPRING, IN Models .....                                 | 1    |
| 38   | B1-210-12   | •COLLAR, release, IN Models .....                        | 1    |
| 39   | B1-210-14   | •RING, snap, IN Models .....                             | 1    |
| 40   | B1-210-22   | •SPRING, IN Models .....                                 | 1    |
| 41   | B1-210-21   | •SHAFT, IN Models .....                                  | 1    |
| 42   | B1-210-13   | •BALL, IN Models .....                                   | A/R  |
| 43   | B1-020-75   | HANDLE, IN Models .....                                  | 1    |
|      | B1-210-45   | HANDLE, sterilizable, focus/positioning, IN Models ..... | 1    |
| 44   | B1-210-46   | DIFFUSER / FILTER ASSEMBLY, IF Models .....              | 5    |
|      | B1-210-01   | DIFFUSER / FILTER ASSEMBLY, IN Models .....              | 5    |
| 45   | B1-210-05   | •SCREW, 1/4 turn .....                                   | 1    |
| 46   | B1-210-48   | •DIFFUSER LENS, IF Models .....                          | 1    |
|      | B1-210-04   | •DIFFUSER LENS, IN Models .....                          | 1    |
| 47   | B1-210-47   | •FILTER, IF Models .....                                 | 1    |
|      | B1-210-03   | •FILTER, IN Models .....                                 | 1    |
| 48   | B1-210-07   | •MOUNT, rubber filter .....                              | 4    |
| 49   | B1-210-06   | •RETAINER, diffuser .....                                | 1    |
| 50   | B1-220-23   | FRONT FACE, IF22                                         |      |
|      | B1-220-21   | FRONT FACE, S.N.05930194&L, IN22 .....                   | 1    |
|      | B1-220-02   | FRONT FACE, S.N.05930193&P, IN22 .....                   | 1    |
| 51   | B1-220-04   | HANDLE, positioning .....                                | 1    |
|      | B9-210-38   | BOLT and WASHER, handle mounting .....                   | 2    |
| 52   | B1-220-17   | COLLAR, focus rod .....                                  | 1    |
| 53   | B1-220-10   | TRUNNION .....                                           | 1    |
|      | B1-220-10-1 | TRUNNION IF22B Models .....                              | 1    |
|      | B9-210-39   | BOLT, trunnion mounting .....                            | 2    |
| 54   | B1-220-08   | PLUG, yoke trunnion .....                                | 1    |
| 55   | B1-210-40   | GEAR, focus shaft .....                                  | 2    |
| 56   | B1-220-25   | SUPPORT FRAME, IF22 .....                                | 1    |
|      | B1-220-19   | SUPPORT FRAME, IN22 .....                                | 1    |
| 57   | B1-210-49   | MOUNT, bulb holder, IF Models .....                      | 5    |
|      | B1-210-10   | MOUNT, bulb holder, IN Models .....                      | 5    |
| 58   | B1-010-28   | BULB, halogen, 24501 .....                               | 5    |
| 59   | B1-010-59   | REFLECTOR .....                                          | 5    |
| 60   | B1-010-62   | CLAMP, halogen bulb, large .....                         | 5    |
| 61   | B1-010-61   | SOCKET, halogen bulb .....                               | 5    |
| 62   | B1-210-08   | HOLDER, reflector .....                                  | 5    |
| 63   | B1-210-09   | PIVOT HARDWARE .....                                     | 10   |
| 64   | B1-210-36   | LINKAGE, focus rod adjustment .....                      | 5    |
| 65   | B1-220-06   | FOCUS ROD SET .....                                      | 1    |
| 66   | B1-010-12   | PIN, cotter .....                                        | 5    |
| 67   | B1-220-26   | TRIM STRIP, black, IF22 .....                            | 2    |
|      | B1-220-20   | TRIM STRIP, black, IN22 .....                            | 2    |
| 68   | B9-210-72   | WASHER, wave .....                                       | 1    |
| 69   | B1-210-52   | C.F. ENGAGEMENT HEAD ASSY., IF Models .....              | 1    |
|      | B1-210-53   | C.F. ENGAGEMENT HEAD ASSY., IN to IF conversion .....    | 1    |
| 70   | B1-210-50   | HANDLE, sterilizable, focus/positioning, IF Models ..... | 1    |



| Item | Part No.    | Description                                             | Qty. |
|------|-------------|---------------------------------------------------------|------|
|      | B1-230-01-2 | MODEL IF30 LIGHTHEAD COMPLETE .....                     | A/R  |
|      | B1-230-01   | MODEL IN30 LIGHTHEAD COMPLETE .....                     | A/R  |
| 1    | B1-210-34   | TERMINAL STRIP .....                                    | 1    |
|      | B9-210-34   | SCREW, terminal strip mounting .....                    | 2    |
| 2    | B1-210-35   | •COVER, terminal strip .....                            | 1    |
|      | B9-210-35   | •SCREW, terminal strip cover .....                      | 2    |
| 3    | B1-210-33   | BRACKET, terminal strip mounting .....                  | 1    |
|      | B9-210-36   | SCREW, bracket mounting .....                           | 2    |
| 4    | B1-210-31   | BUSHING .....                                           | 1    |
| 5    | B1-210-32   | WASHER, wave .....                                      | 1    |
| 6    | B1-230-07   | FOCUS RING ASSEMBLY .....                               | 1    |
| 7    | B1-210-30   | PIN .....                                               | 1    |
| 8    | B1-210-29   | GEAR .....                                              | 1    |
| 9    | B1-210-28   | SEGMENT, gear .....                                     | 1    |
|      | B9-210-37   | SCREW, gear segment mounting .....                      | 2    |
| 10   | B1-210-27   | MOUNT, gear reduction .....                             | 1    |
| 11   | B1-210-26   | WASHER, wave .....                                      | 1    |
| 12   | B1-210-25   | GEAR .....                                              | 1    |
| 13   | B1-210-23   | NUT .....                                               | 1    |
| 14   | B1-230-08   | VENT, top cover .....                                   | 1    |
| 15   | B1-230-23   | TOP COVER, IF30 .....                                   | 1    |
|      | B1-230-21   | TOP COVER, S.N.05930178&L, IN30 .....                   | 1    |
|      | B1-230-03   | TOP COVER, S.N.05930177&P, IN30 .....                   | 1    |
| 16   | B1-210-37   | RETAINER, top cover, S.N.05930177&P .....               | 2    |
|      | B1-210-38   | RETAINER, top cover, w/screw hole, S.N.05930177&P ..... | 1    |
| 17   | B1-230-09   | TRUNNION (w/stop) .....                                 | 1    |
|      | B1-230-09-1 | TRUNNION (w/stop) IF30B Models .....                    | 1    |
|      | B9-210-39   | BOLT, trunnion mounting .....                           | 2    |
| 18   | B1-230-11   | BALL .....                                              | 1    |
| 19   | B1-230-12   | BUSHING .....                                           | 2    |
| 20   | B1-230-13   | WASHER, wave .....                                      | 2    |
| 21   | B1-230-14   | NUT .....                                               | 2    |
| 22   | B1-210-42   | WASHER, wave .....                                      | 2    |
| 23   | B1-210-44   | LABEL, focus control .....                              | 2    |
| 24   | B1-210-43   | KNOB, focus w/set screw .....                           | 2    |
| 25   | B1-210-41   | PLATE .....                                             | 2    |
| 26   | B1-230-15   | SHAFT, focus .....                                      | 2    |
| 27   | B1-230-05   | YOKE, (Model 30) .....                                  | 1    |
| 28   | B1-210-39   | LATCH, top cover, S.N.05930177&P .....                  | 3    |
| 29   | B1-010-21   | WASHER, top cover .....                                 | A/R  |
| 30   | B1-010-14   | SCREW, top cover .....                                  | A/R  |
| 31   | B1-210-11   | C.F. ENGAGEMENT HEAD ASSEMBLY, IN Models .....          | 1    |
| 32   | B1-210-19   | •SUPPORT, IN Models .....                               | 1    |
| 33   | B1-210-20   | •PIN, IN Models .....                                   | 1    |
| 34   | B1-210-18   | •SPRING, IN Models .....                                | 1    |
| 35   | B1-210-17   | •RETAINER, IN Models .....                              | 1    |
| 36   | B1-210-16   | •COLLAR, engagement, IN Models .....                    | 1    |
| 37   | B1-210-15   | •SPRING, IN Models .....                                | 1    |



| Item | Part No.    | Description                                              | Qty. |
|------|-------------|----------------------------------------------------------|------|
| 38   | B1-210-12   | •COLLAR, release, IN Models .....                        | 1    |
| 39   | B1-210-14   | •RING, snap, IN Models .....                             | 1    |
| 40   | B1-210-22   | •SPRING, IN Models .....                                 | 1    |
| 41   | B1-210-21   | •SHAFT, IN Models .....                                  | 1    |
| 42   | B1-210-13   | •BALL, IN Models .....                                   | A/R  |
| 43   | B1-020-75   | HANDLE, IN Models .....                                  | 1    |
|      | B1-210-45   | HANDLE, sterilizable, focus/positioning, IN Models ..... | 1    |
| 44   | B1-210-46   | DIFFUSER / FILTER ASSEMBLY, IF Models .....              | 8    |
|      | B1-210-01   | DIFFUSER / FILTER ASSEMBLY, IN Models .....              | 8    |
| 45   | B1-210-05   | •SCREW, 1/4 turn .....                                   | 1    |
| 46   | B1-210-48   | •DIFFUSER LENS, IF Models .....                          | 1    |
|      | B1-210-04   | •DIFFUSER LENS, IN Models .....                          | 1    |
| 47   | B1-210-47   | •FILTER, IF Models .....                                 | 1    |
|      | B1-210-03   | •FILTER, IN Models .....                                 | 1    |
| 48   | B1-210-07   | •MOUNT, rubber filter .....                              | 4    |
| 49   | B1-210-06   | •RETAINER, diffuser .....                                | 1    |
| 50   | B1-230-04   | HANDLE, positioning .....                                | 4    |
|      | B9-210-38   | BOLT and WASHER, handle mounting .....                   | A/R  |
| 51   | B1-230-22   | FRONT FACE, IF30 .....                                   | 1    |
|      | B1-230-20   | FRONT FACE, S.N.05930178&L, IN30 .....                   | 1    |
|      | B1-230-02   | FRONT FACE, S.N.05930177&P, IN30 .....                   | 1    |
| 52   | B1-230-10   | TRUNNION .....                                           | 1    |
|      | B1-230-10-1 | TRUNNION IF30B Models .....                              | 1    |
|      | B9-210-39   | BOLT, trunnion mounting .....                            | 2    |
| 53   | B1-230-24   | SUPPORT FRAME, IF30 .....                                | 1    |
|      | B1-230-17   | SUPPORT FRAME, IN30 .....                                | 1    |
| 54   | B1-210-40   | GEAR, focus shaft .....                                  | 2    |
| 55   | B1-210-49   | MOUNT, bulb holder, IF Models .....                      | 8    |
|      | B1-210-10   | MOUNT, bulb holder, IN Models .....                      | 8    |
| 56   | B1-010-28   | BULB, halogen, 24501 .....                               | 8    |
| 57   | B1-010-59   | REFLECTOR .....                                          | 8    |
| 58   | B1-010-62   | CLAMP, halogen bulb, large .....                         | 8    |
| 59   | B1-010-61   | SOCKET, halogen bulb .....                               | 8    |
| 60   | B1-210-08   | HOLDER, reflector .....                                  | 8    |
| 61   | B1-210-09   | PIVOT HARDWARE .....                                     | 16   |
| 62   | B1-210-36   | LINKAGE, focus rod adjustment .....                      | 8    |
| 63   | B1-230-06   | FOCUS ROD SET .....                                      | 1    |
| 64   | B1-010-12   | PIN, cotter .....                                        | 8    |
| 65   | B1-230-25   | TRIM STRIP, black, IF30 .....                            | 2    |
|      | B1-230-18   | TRIM STRIP, black, IN30 .....                            | 2    |
| 66   | B1-210-52   | C.F. ENGAGEMENT HEAD ASSY., IF Models .....              | 1    |
|      | B1-210-53   | C.F. ENGAGEMENT HEAD ASSY., IN to IF conversion .....    | 1    |
| 67   | B1-210-50   | HANDLE, sterilizable, focus/positioning, IF Models ..... | 1    |



| Item | Part No.  | Description                                                    | Qty. |
|------|-----------|----------------------------------------------------------------|------|
|      | B9-210-01 | SINGLE WALL CONTROL ASSEMBLY (IN22) .....                      | A/R  |
|      | B9-210-02 | DUAL WALL CONTROL ASSEMBLY (IN2222) .....                      | A/R  |
|      | B9-210-03 | TRIPLE WALL CONTROL ASSEMBLY (IN222222) .....                  | A/R  |
|      | B9-210-04 | SINGLE WALL CONTROL ASSEMBLY (IN30) .....                      | A/R  |
|      | B9-210-05 | DUAL WALL CONTROL ASSEMBLY (IN3022) .....                      | A/R  |
|      | B9-210-06 | TRIPLE WALL CONTROL ASSEMBLY (IN302222) .....                  | A/R  |
|      | B9-210-46 | DUAL WALL CONTROL ASSEMBLY (IN30AR22EL) .....                  | A/R  |
|      | B9-210-47 | TRIPLE WALL CONTROL ASSEMBLY (IN30AR2222EL) .....              | A/R  |
|      | B9-210-60 | SINGLE WALL CONTROL ASSEMBLY (IN30TV) .....                    | A/R  |
|      | B9-210-49 | DUAL WALL CONTROL ASSEMBLY (IN30TV22EL) .....                  | A/R  |
|      | B9-210-50 | TRIPLE WALL CONTROL ASSEMBLY (IN30TV2222EL) .....              | A/R  |
| 1    | B9-210-07 | FLANGE, recess mount .....                                     | A/R  |
| 2    | B9-210-40 | SCREW, flange mounting .....                                   | 8    |
| 3    | B9-210-09 | COVER, electrical access .....                                 | 2    |
| 4    | B9-210-41 | SCREW, cover mounting .....                                    | 2    |
| 5    | B9-210-08 | HOUSING, wall control .....                                    | 1    |
| 6    | B9-210-10 | MOUNT, terminal strip, lower .....                             | 1    |
|      | B9-210-11 | MOUNT, terminal strip, upper .....                             | 1    |
| 7    | B9-210-12 | PLATE, upper transformer mount .....                           | 1    |
| 8    | B9-210-14 | TERMINAL STRIP .....                                           | A/R  |
| 9    | B9-210-42 | SCREW, terminal strip mounting .....                           | A/R  |
| 10   | B9-210-15 | PANEL, wall control front .....                                | 1    |
| 11   | B9-210-43 | SCREW w/WASHERS .....                                          | 4    |
| 12   | B9-210-16 | SWITCH, main power .....                                       | 1    |
| 13   | B9-210-21 | FUSE, SM 3.15, 250V, 3.15A (Model 22 lighthouse) .....         | A/R  |
|      | B9-210-22 | FUSE, SM 5, 250V, 5A (Model 30 lighthouse) .....               | A/R  |
| 14   | B1-010-01 | FUSEHOLDER .....                                               | A/R  |
| 15   | B9-210-20 | KNOB, dimmer control .....                                     | A/R  |
| 16   | B9-210-74 | SWITCH, dimmer control, voltage adjustable (Model 22) .....    | A/R  |
|      | B9-210-75 | SWITCH, dimmer control, voltage adjustable (Model 30) .....    | A/R  |
|      | B9-210-66 | SWITCH, dimmer control, voltage adjustable (30AR & 30TV) ..... | A/R  |
| 17   | B9-210-17 | TRANSFORMER, 250W, multi-tap (Model 22 lighthouse) .....       | A/R  |
|      | B9-210-64 | TRANSFORMER, 250W, single-tap (Model 22 lighthouse) .....      | A/R  |
|      | B9-210-18 | TRANSFORMER, 400W, multi-tap (Model 30 lighthouse) .....       | A/R  |
|      | B9-210-65 | TRANSFORMER, 400W, single-tap (Model 30 lighthouse) .....      | A/R  |
| 18   | B9-210-13 | PLATE, lower transformer mount .....                           | 1    |
| 19   | B9-210-48 | SCREW, wall control .....                                      | A/R  |
| 20   | B9-210-58 | INSULATOR, dimmer control .....                                | A/R  |
| 21   | B9-210-70 | WASHER, dimmer control .....                                   | A/R  |
| 22   | B9-210-71 | NUT, dimmer control .....                                      | A/R  |









