

# ***TPC***

## Lucent L690-LED Installation and Operation Manual



TPC  
851 S. Lawson St  
City Of Industry, CA 91748



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[dentalgerate.com](http://dentalgerate.com)

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Technical Assistance is available Monday through Friday, 8:00 Am to 5:00 PM PST.

# TPC

## SYMBOLS



### **DANGER**

The paragraphs marked with this symbol contain instructions which must be followed carefully to avoid damaging the device, the operator and the patient.



### **WARNINGS**

These instructions warn the operator that it is mandatory to operate with utmost care to avoid situations which could damage the device.



### **RESTRICTION**

This icon indicates the most appropriate behavior to avoid damaging the device.



### **RECOMMENDATIONS**

This icon indicates useful details for an effective use of the device.



Dispose of the device according to the regulations on separate waste collection of electrical equipment. Directive WEEE 2012/19/EC



Class II device.

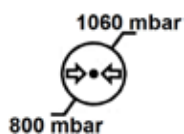


Danger warning symbol

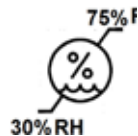


Refer to the documentation enclosed..

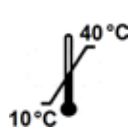
### ATMOSPHERIC PRESSURE



### RELATIVE HUMIDITY



### TEMPERATURE



### SWITCH SYMBOLS



**ADJUSTMENT  
SENSOR**



ON



OFF



**SERIAL NUMBER**



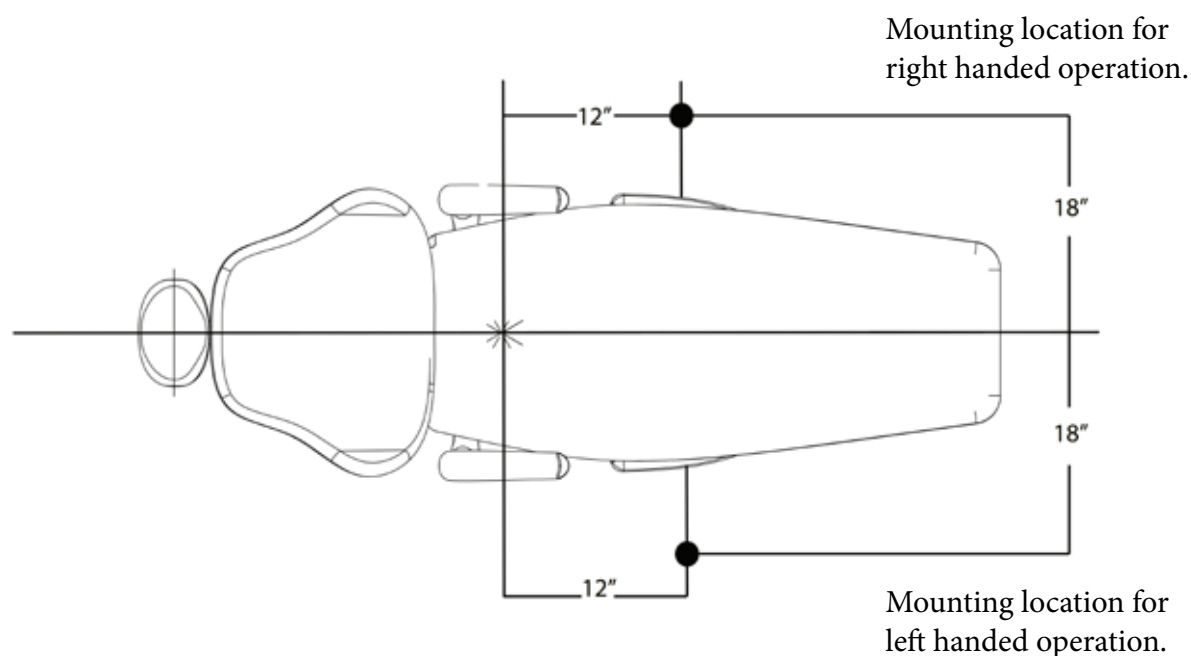
**ITEM CODE**



**STERILISATION**

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# Ceiling Bracket Suggested Placement



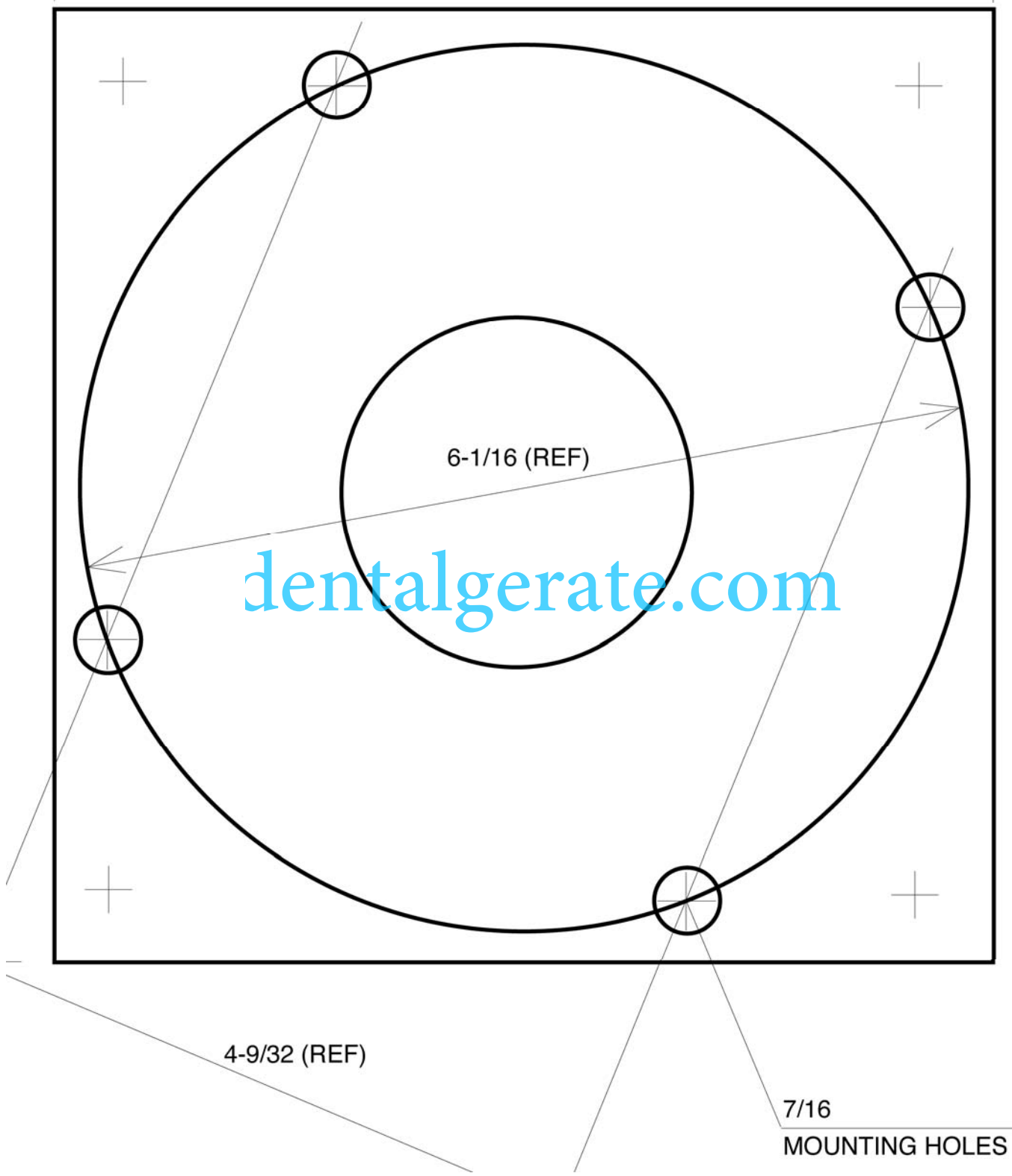
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## Location

A typical location for mounting the ceiling light in relation to the dental chair for a right-handed operator is shown in the figure above. Mounting for a left-handed operator would be mounted on the opposite side of the chair.

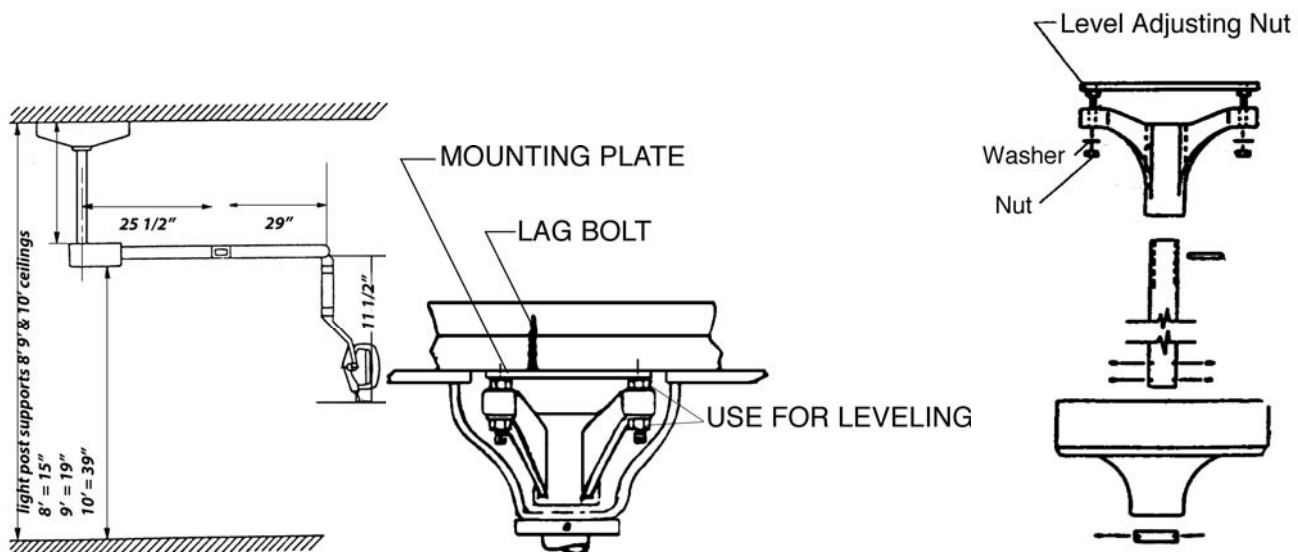
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6-15/32 (REF)



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1. Secure mounting plate to the ceiling using supplied LAG bolts.
  2. Route power supply through the center of the mounting plate.
  3. Install the leveling nuts between the mounting plate and ceiling flange if not already attached.
  4. Route the wire through drop post and Install the light post into the ceiling flange and secure it with the provided roll pin.
  5. Secure the light post to the ceiling flange by tightening the set screws.
  6. Slide the flange cover and flange cover retaining ring up over the drop post and secure it in place.
  7. Connect the incoming power lines to the 3 cord wire and secure it with wire nuts.
  8. Install the light transformer housing to the drop post and attached it using only the supplied set screws.
- See diagram below for plate and flange installation.



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Dental head

“EDI LED”

The device has to be installed by specialized technicians only  
Make sure all the components listed below have been included in the package received.

- Dental head (version according to order)
- Wrench for front screen removal (8 fig.4)
- Instruction manual



The device has to be cleaned prior to use  
(see “Cleaning the device” paragraph).



Cut off the power supply prior to installation.

## ELECTRICAL CONNECTION HEAD - ARM

For the electrical connections refer to the wiring diagrams given in the manual.

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Always check the rating data prior to installation

## ASSEMBLING THE HEAD TO THE ARM

(see product identification table)

Remove adaptor  
Bushing



Attach bushing  
to light head



Connect wire  
harness



Secure light  
head to arm



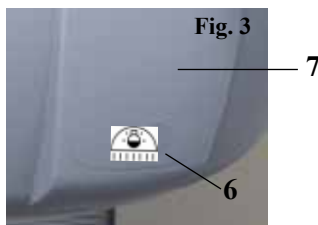
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## FEATURES

### Versions

- “EDI LED” head can be supplied in the following versions:
- Head with switch
- Head with switch + automatic lighting function
- Head with con proximity sensor
- Head with switch + automatic lighting function
- Light source consisting of two LEDs whose light is mirrored into two parabolic reflectors.
- Reflecting surfaces with parabolic reflectors which allow obtaining a regular uniform spot light at all lighting levels and to uniformly distribute the light in the operating field with no shadows or dark areas created by the operator.
- Light intensity adjustment using a mechanical switch or with a sensor.
- Sensor enables the light to be switched on or off without direct contact, eliminating therefore the possibility of cross-infection.
- “Automatic lighting” function allows the lamp to get switched on automatically whenever the power is enabled.
- Easy maintenance thanks to the application of new technology that takes into consideration various requirement in terms of safety, ergonomics and hygiene.
- Removable handles for sterilization
- Front screen lower significantly internal contamination of the device.
- Electrical connection - Follow the wiring diagrams

## DESCRIPTION OF PARTS



- 1 - On/Off switch (with or with no automatic lighting function)  
Adjusting the light intensity
- 2 - Lens
- 3 - Parabola
- 4 - Handle
- 5 - Front screen
- 6 - Sensor (with or with no automatic lighting function)  
Adjusting the light intensity
- 7 - Electronic board
- 8 - Wrench for front screen removal



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EDI LED head is used for lighting the oral cavity during surgery in dental practice. The optical parameters are obtained by positioning the lamp at 700 mm from the subject. At different distances the light spot could lose its optimum parameters in terms of size, homogeneity and lighting. It is therefore recommended to follow as much as possible the indicated distance.



Never use the head if any part thereof is faulty

## SIMBOLS



ADJUSTING THE LIGHT INTENSITY



ON

Switch on



OFF

Switch off

## “EDI LED” HEAD WITH SWITCH

Switch on / off / Adjustment

- To switch the lamp On and Off, press and release the push button to the left or right side. When the lamp is switched On / Off, the device will beep (once).
- Adjustment: When switched on, the lamp is at its maximum lighting capacity. To lower light intensity, keep the push button pressed to the left /right side until it reaches the required intensity. When it reaches the minimum intensity, the device will beep once
- The adjustment goes from maximum to minimum light intensity.
- To go back to the maximum intensity, switch off and back on the lamp.



The light intensity will be MAXIMUM each time it is switch on.

The push button has to be handled easily to avoid its breakage.

## EDI LED ” AUTOMATIC TURN ON FUNCTION

The “automatic lighting” function allows the lamp to turn on automatically whenever the power is enabled.

## “EDI LED” WITH SENSOR (Optional)



sensor

Switch on / off / Adjustment

- To switch On or Off , get near the sensor up to a maximum distance of 3 cm. When the lamp is switched on / off, the device will beep (once).
- To adjust the light intensity, stand still near the sensor until it is reached the wanted intensity, from the maximum to the minimum value.
- The adjustment goes from maximum to minimum light intensity.
- To go back to the maximum intensity, switch off and back on the lamp.



## Vertical Arm adjustment

If you experience a downward drift with your operatory lights vertical arm please follow the producer below.

- Remove the end cap cover on the end of the vertical arm closest to the light head. This requires a small Phillips screw driver.
- Turn the nut located at the end of the light arm to adjust the tension.
- Turn the nut clockwise to increase the tension. Turn the nut counter clockwise to decrease the tension.
- If your vertical light arm drifts down then you need to increase the tension.
- If the vertical light arm drifts back up you need to adjust the friction screw. Only adjust the friction screw in quarter turns.

Tension Nut

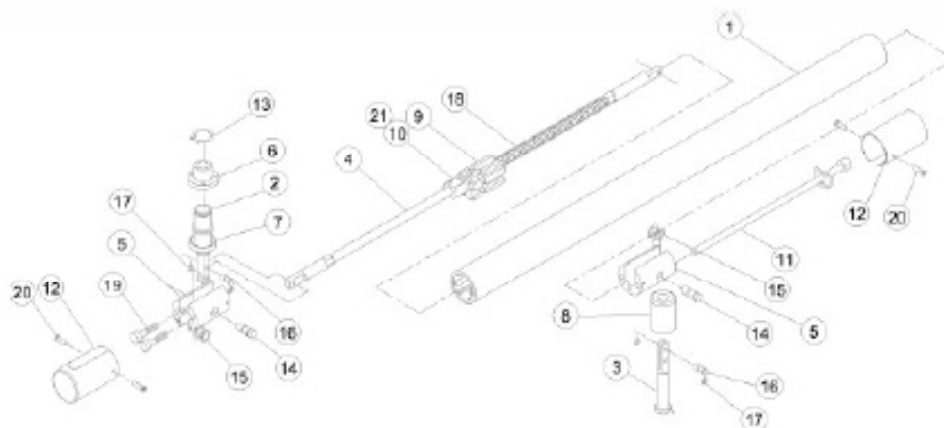


Friction Screw



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| Item | Part Number | Description            |
|------|-------------|------------------------|
| 1    | 56021       | Cover Flex Arm         |
| 2    | 56022       | Knuckle, Rigid Arm     |
| 3    | 56023       | Knuckle, Head          |
| 4    | 56024       | Spring Rod             |
| 5    | 56025       | Extension Support      |
| 6    | 56026       | Bushing                |
| 7    | 56027       | Bezel                  |
| 8    | 56028       | Bushing                |
| 9    | 56029       | Block Spring Tensioner |
| 10   | 56030       | Friction Block         |
| 11   | 56031       | Tensioner Rod          |
| 12   | 56032       | End Cap Cover          |
| 13   | 56033       | Retainer Ring          |
| 14   | 56034       | Long Pin               |
| 15   | 56035       | Retainer Ring Small    |
| 16   | 56036       | Short Pin              |
| 17   | 56037       | Retainer Ring Small    |
| 18   | 56038       | Spring                 |
| 19   | 56039       | Screw Cap Head Socket  |
| 20   | 56040       | Screw, End Cap         |
| 21   | 56041       | Friction Screw         |



## Cleaning and disinfecting guide

\*The Manufacturer makes no representation as to the disinfectant efficacy of these products. We make no warranty expressed or implied that these disinfectants will not damage the surface finishes. Damage and discoloration of the surface finishes are not covered under the warranty. Iodophor based disinfectants will cause yellow staining on many surfaces. Regular washing with soap and water will minimize this staining. Iodophor neutralizers such as Promeddyne are also available.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Unacceptable Disinfectants</p> <p>These disinfectants will harm the surface finishes of dental equipment and are not recommended.</p> <p>Use of these products will void your warranty.</p> <p>Chemical Composition / Trade Names</p> <p>Strong Phenols / Lysol, Lysol 2, Lysol</p> <p>Phenol Alcohol Professional, Coe Foam, Coe combinations Spray Pump, Vitaphene, Omni II</p> <p>Sodium Hypochlorite / Clorox, Ajax, Purex</p> <p>Household Bleach</p> <p>Alcohol</p> <p>Household Cleaners</p> | <p>Conditionally Acceptable Disinfectants</p> <p>These disinfectants have been found to be the least harmful to the equipment surfaces by our test methods.</p> <p>Chemical Composition Trade Names</p> <p>Iodophors Biocide, Aseptic IDC, Wescodyne, SD5, Promeddyne, Iodo Five</p> <p>Mild Phenols Procide ES, Asepti Steryl</p> <p>Aerosol</p> <p>Glutaraldehyde / Sterall Spray, Coldspor</p> <p>Phenol Sprays</p> <p>Synergized Super Dis cide, Cavicide, Kleenaseptic</p> <p>Quat</p> <p>Phenol/Water Sprays Top Cide, Sporicidin Pump</p> <p>Spray</p> <p>Birex se</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## Warranty Information

LED Operatory lights are guaranteed to be free from defects in workmanship and materials for a 2 years from date of purchase, unless otherwise stated. TPC will repair or replace any defective “part” at no charge. TPC will not be responsible for labor charges or shipping charges to / from the TPC facility. This guarantee does not cover normal wear or stains on surface finish. The guarantee does not cover damage resulting from improper installation, misuse or accidents incurred in shipping and handling. All claims against the freight carrier must be initiated at the time the damaged items are received. The claim is the responsibility of the customer. We are improving our products on a continuous basis. We reserve the right to make modifications without the need for prior notification and are not obliged to modify previously manufactured items. Light bulbs are not covered under any type of warranty. Only authorized service technicians should attempt to service TPC equipment. Service performed by any unauthorized technician may result in a voided warranty.

## Troubleshooting guide

| Problem                                             | Cause                                | Solution                                                   |
|-----------------------------------------------------|--------------------------------------|------------------------------------------------------------|
| Light does not illuminate                           | No power to light                    | Check power                                                |
|                                                     | LED has expired                      | Replace LED                                                |
|                                                     | Transformer is expired               | Replace transformer                                        |
| Light turns on and off then the light head is moved | Open in line power                   | check light head to ridge arm connector. Inspect arm wire. |
| Vertical arm drifts down                            | Tension needs to be increased in arm | tighten arm tension adjustment                             |
| Verticle arm drifts up                              | Friction arm adjustmnet loose        | Tighten friction arm adjustment                            |
| Light drifts from left to right                     | Light post not level                 | Level unit / light post                                    |
|                                                     |                                      |                                                            |