

## SERPENTINE20/SERPENTINE39 SERIES INSTALLATION INSTRUCTIONS

### Important

**THIS SHEET CONTAINS IMPORTANT SAFETY INSTRUCTIONS.  
SAVE THESE INSTRUCTIONS.**

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### Warning

**This product must be installed in accordance with National Electrical Codes and all other local codes by a person familiar with the construction and operation of the product and the hazards involved.**

**To prevent electrical shock, turn off the power during installation or maintenance.**

**To reduce the risk of fire, keep away from combustible materials.**

**To reduce the risk of fire, do not remove Pyrex safety lens.**

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### Product Overview

The Serpentine series spotlights feature a removable, "quarter-turn" front bezel for easy lamp, accessory and reflector installation, and swivels that are both self-locking and wrench-locking for horizontal and vertical focusing. The front bezel holds the reflector and up to three size-A filters and accessories while controlling spill light and glare.

The SPT4-20/SPT4-39 accepts CMH20/T4/G12 for 20-watt lamps and CMH39/T4/G12 for 39-watt lamps. See the fixture label for voltage and wattage input.

**This package does not include a lamp or accessories.** Please consult our *Product Catalog* or web site for available lamp models, filters, and accessories.

We recommend that you first install the lamp before putting the fixture on a track, canopy, or fitting. Refer to the "Changing or Installing the Lamp" section of this sheet for lamp installation instructions. This fixture is designed for use with GE lamps only.



**Sample Replacement Lamp**

**SPT4-20/SPT4-39 Series Spotlight**



### Purpose of This Sheet

The purpose of this sheet is to provide step-by-step instructions to help you:

- Change the lamp (re-lamp)
  - Install the lamp for the first time
  - Install the fixture with any of the following: -00 fitting on an LSI track, -BUS fitting on an LSI Busway, 5A canopy, -2G universal flange fitting, or -3G C-Clamp fitting
  - Install accessory filters and reflectors
  - Aim the self-locking and wrench-locking fixture
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### Changing or Installing the Lamp

**Before Re-lamping:** To maintain the fixture's current orientation, re-lamp the fixture in its location. If the orientation does change, refer to the "Aiming the Fixture" section of this sheet. Refer to our *Product Catalog* or web site for lamp model suggestions.

**Follow steps 1, 2, 4, and 5 if you are installing the lamp for the first time.**

STEP	ACTION
1	Turn off all power to the fixture, including the fixture switch on the fitting, and let the lamp cool. <b>WARNING: Lamp and fixture may be hot.</b>
2	Remove the front bezel by turning it counter-clockwise, then pulling it off the fixture. (Fig. 1).
3	Remove the old lamp by pulling it by its base straight off the lamp holder (Fig. 2). Note: Consult the lamp manufacturer's recommendation for disposing of the old lamp.
4	Insert the new lamp by aligning the lamp's pins with the openings in the lamp holder (Fig. 2 inset), and then push in by its base until the lamp is fully seated (Fig. 2).
5	Close the fixture front by replacing the front bezel. Align the bayonet spring/brass bushings on the bezel to the grooves on the fixture and rotate clockwise until an audible "click" is heard and the bezel is seated (Fig. 1).
6	Restore power. <b>WARNING: Do not look directly at the lit lamp.</b>



Figure 1. Closed fixture (L). Front bezel removed (R).



Figure 2. Opened lamp housing. Lamp holder (inset L). Pull the old lamp out by its base to remove it. Insert the new lamp and push it in until it is fully seated.

*Installing the Fixture with the -00 Fitting on an LSI Track or a -BUS fitting on an LSI Busway*

**FOR USE WITH LSI 3, 4, 5, 6, 8, AND 9 SERIES TRACK AND LSI 20 SERIES BUSWAY SYSTEMS ONLY.**

**INSTALLATION INSTRUCTIONS:** The track or busway must already be installed according to code requirements. When installing or using this track or busway system, basic safety precautions should always be followed, including the following:

- Read all instructions.
- Do not install any part of a track or busway system less than 5 feet above the floor (8 feet for 277V).
- Do not install any fixture closer than 6 inches from any curtain or similar combustible material.

STEP	ACTION
1	Flip the fitting switch off and open the fitting handle ( <b>Fig. 3</b> ).
2	Are you using a one-circuit or two-circuit system? <ul style="list-style-type: none"> <li>▪ <i>If one-circuit</i>, make sure the brass contacts that protrude from the side of the fitting face the copper busbars inside the track or busway.</li> <li>▪ <i>If two-circuit</i>, inserting the fitting in one direction connects to circuit one. Removing and reversing the direction of the fitting connects to circuit two.</li> </ul>
3	Insert the fitting straight up into the track or busway until fully seated ( <b>Fig. 4</b> ).
4	Close the handle and flip the fitting switch on ( <b>Fig 5</b> ). <b>WARNING: Do not look directly at lit lamp.</b>
5	To remove the fitting, hold the fixture in place, flip the fitting switch off, open the handle, and pull the fitting straight off the track or busway.



**Figure 3. Fitting with switch OFF and handle OPEN.**



**Figure 4. Inserted fitting**



**Figure 5. Switch ON, fitting handle closed**

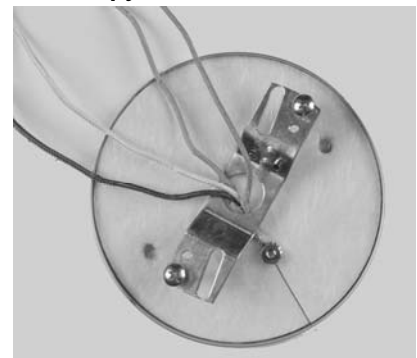
*Installing the Fixture with a 5A Canopy*

**Before Installing:** Consult the code requirements for fixture mounting. Mount the fixture to a ceiling constructed of non-combustible material, away from any flammable materials.

STEP	ACTION
1	Turn off all power to the fixture mount.
2	Unscrew the 2 supplied canopy mounting screws, and remove the crossbar from the canopy ( <b>Fig. 6</b> ).
3	Attach the canopy crossbar ( <b>Fig. 7</b> ) to a ceiling junction box with 2 screws (supplied by others).
4	Fasten the power wires ( <b>Fig. 7</b> ) from the junction box to the fixture wires. <i>Note:</i> Connect green to ground, black to the circuit line, and white to neutral.
5	Attach the canopy to the ceiling with the 2 supplied canopy mounting screws.



**Figure 6. Fixture mounted on the 5A Canopy**



**Figure 7. Ground and power wires with canopy crossbar**

### Installing the Fixture with a -2G Universal Flange Fitting and a -3G C-Clamp Fitting

**Before Installing:** Consult the code requirements for fixture mounting, and check the distance-from-wall label inside the fixture. Mount away from any flammable materials.

**For the -2G fitting, follow steps 1, 2, 4, and 5.  
For the -3G fitting, follow steps 1, 3, 4, and 5.**

STEP	ACTION
1	Turn off all power to the fixture.
2	Attach the -2G fitting ( <b>Fig. 8</b> ) to any non-combustible material, using the 2-hole flanged mounting plate with 2 screws (supplied by others) or bolt-up applications, such as Unistrut or Kindorf systems.
3	Attach the -3G fitting ( <b>Fig. 9</b> ) to a non-combustible pipe measuring 5/8" to 2" in outside diameter, and then secure the fitting by turning the C-clamp bolt clockwise.
4	Plug the fixture into a power source. <b>IMPORTANT SAFETY INSTRUCTIONS</b> This product has a polarized plug (one blade is wider than the other) as a feature to reduce the risk of electric shock. This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Never use with an extension cord unless the plug can be fully inserted. Do not alter the plug.
5	Turn on the main power, and then flip the fitting switch on. Note: The switch is located on the base of fitting.



**Figure 8. -2G universal flange fitting**

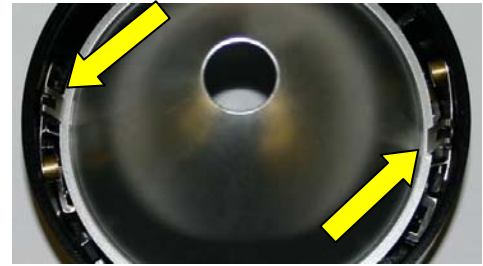


**Figure 9. -3G C-clamp fitting**

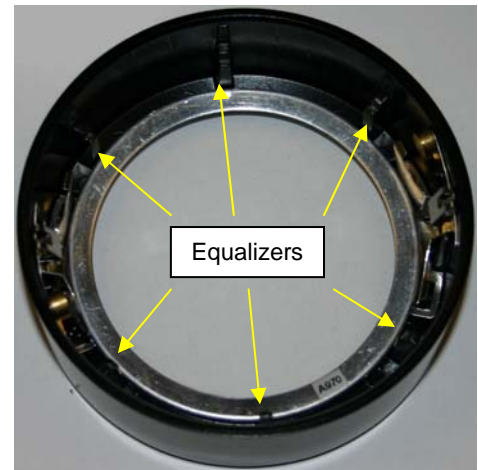
### Installing Accessory Filters and Reflectors

**Before Installing:** The SPT4-20/SPT4-39 has a removable front bezel that holds size-AN LSI filters and accessories, as well as other reflectors. The SPT4-20/SPT4-39 package includes a Pyrex safety lens and a reflector. Consult our *Product Catalog* or web site for accessory recommendations.

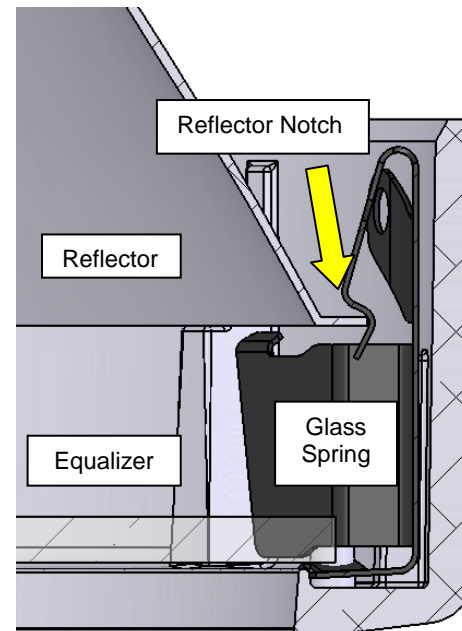
STEP	ACTION
1	Turn off all power to the fixture, including the fixture switch on the fitting, and let the lamp cool. <b>WARNING: Lamp and fixture may be hot.</b>
2	Remove the front bezel ( <b>Fig. 1</b> ) by turning it counter-clockwise, then pulling it off the fixture.
3	Remove the reflector by pushing in one of the two clips holding the reflector in place, and pull the reflector out ( <b>Fig. 10</b> ).
4	Insert the glass or accessory filter directly inside the front bezel until it is secured in place ( <b>Fig. 11</b> ). <i>Note:</i> The front bezel holds up to 3 accessory filters. The smooth side of the spread lenses and beam-softener filters faces the lamp. <b>WARNING: This fixture is supplied with a Pyrex safety lens. DO NOT REMOVE PYREX SAFETY LENS.</b>
5	<ul style="list-style-type: none"> <li>Install the reflector by pushing it back in until the two clips are securing it in place again (<b>Fig. 10 &amp; 12</b>). <i>Note:</i> Ensure that the reflector is in the center of the six equalizers and not touching the edge of the bezel (<b>Fig. 11</b>).</li> </ul>
6	Close the fixture front by replacing the front bezel. Align the bayonet spring/brass bushing on the bezel to the grooves on the fixture and rotate clockwise until an audible “click” is heard and the bezel is seated ( <b>Fig. 1</b> ).
7	Restore power. <b>WARNING: Do not look directly at the lit lamp.</b>



**Figure 10.** Push in one of the two clips holding the reflector in place to remove it.



**Figure 11.** Glass filter inside the front bezel and equalizers. Push to insert or remove filters.



**Figure 12.** Section view of front bezel with reflector secured in the reflector notch and centered on an equalizer.

### Aiming the Self-Locking and Wrench-Locking Fixtures

**Before Aiming:** For self-locking fixtures, you do not need an external locking device to set the horizontal and vertical focus. For wrench locking fixtures, use the supplied Allen key (3/32 inches) to set and lock the horizontal and vertical focus.

STEP	ACTION
1	Turn off all power to the fixture, including the fixture switch on the fitting, and let the lamp cool. <b>WARNING: Lamp and fixture may be hot.</b>
2	Do you want to aim the fixture horizontally or vertically? <ul style="list-style-type: none"> <li>For horizontal aiming, hold the ballast housing and turn it left or right until you achieve your desired orientation (Fig. 13).</li> <li>For vertical aiming, hold the lamp housing and angle it up and down until you achieve your desired orientation (Fig. 14).</li> <li>For wrench locking: After aiming, insert the Allen key into the horizontal or vertical focus lock (Fig. 15), and turn it clockwise to tighten.</li> </ul> <p>Note: Allen key is supplied for track and busway fixtures. It is stored in fitting handle (Fig. 16).</p>
3	Restore power. <b>WARNING: Do not look directly at the lit lamp.</b>



Figure 13. Turn fixture left or right to set the horizontal focus.

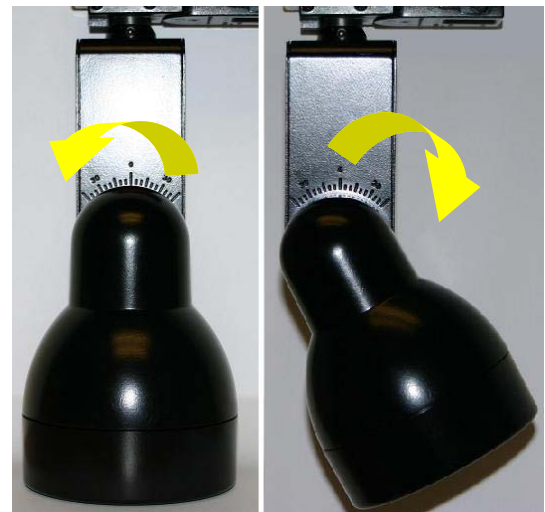


Figure 14. Angle fixture up or down to set the vertical focus.

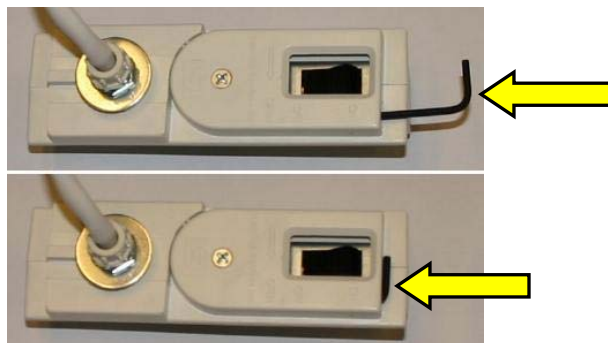


Figure 16. Allen key storage in fitting. Push in to secure the key.

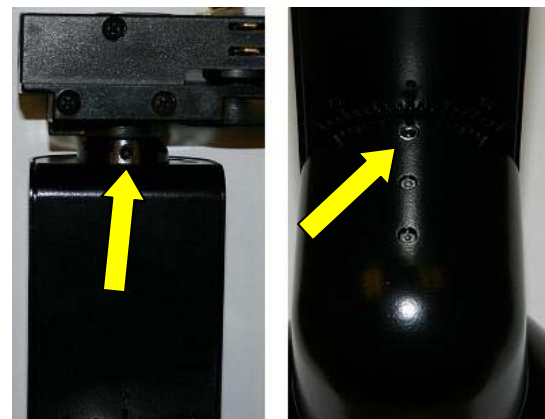


Figure 15. Horizontal focus lock (L). Vertical focus lock (R).