

## INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

### CAUTION!

**TURN ALL POWER OFF. NEVER EXPOSE EYES OR SKIN TO UVC LIGHT FROM ANY SOURCE. WEAR PROTECTIVE EYEWEAR AND COVER ALL EXPOSED SKIN.**

### SAFETY CONSIDERATIONS

---

Improper installation, adjustment, alteration, service, maintenance, or use can cause fire, electrical shock or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your supplier for information or assistance.

#### WARNING:

**Before installing fixture or performing maintenance or service on fixture, turn off main power switch to unit. Electrical shock can cause injury or death. There may be more than one disconnect switch.**

#### CAUTION!

**Never Expose eyes or skin to ultraviolet light from any source. After installation, provide an interlock to turn off germicidal lamps when access door is opened. Lamp must be off before entering HVAC unit to perform maintenance or service. Personal injury may result.**

#### CAUTION!

**Do not touch lamp glass without gloves. Damage to lamp may result. Oil from fingerprints will permanently etch quartz envelope of lamp, weakening structure and diminishing output. Clean lamp after handling.**

#### CAUTION!

**Lamps contain a small quantity of mercury. In case on lamp breakage, take proper precautions in clean-up and disposal.**

The qualified installer must use factory kits or accessories when installing this product. Refer to individual instructions packaged with kits or accessories when installing them.

Follow all safety codes, wear safety glasses and work gloves. Read all instructions thoroughly and follow any warnings or cautions attached to any accessed area. Consult local building codes and National Electrical Code (NEC) for special requirements.

Understand the signal words **DANGER**, **WARNING** or **CAUTION**. These words are universally used for overall safety. **DANGER** identifies the most serious hazards, which will result in severe personal injury or death. **WARNING** signifies hazards, which could result in personal injury or death. **CAUTION** is used to identify unsafe practices, which would result in minor personal injury or product and property damage.

## GENERAL

---

- Lamps may be installed anywhere to bathe an air stream or surfaces with germicidal UVC energy. It is best that they are located at known growth areas such as downstream of the cooling coil and over the drain pan or where best accommodates the system. They may also be placed in a return air duct, supply duct, mixed air plenum, point of delivery or any combination thereof to suit the application.
- When choosing the site, make sure that it can be supplied with the necessary power requirements, and suitable physical access for service.
- Reflecting UVC energy is recommended as it enhances irradiance. Lining the UVC cavity with aluminum allows photons to bounce, reducing possible shadow areas thus increasing efficacy.
- Permanently installed monitoring devices, such as radiometers or lamp failure indication, are recommended for ease of maintaining system efficiency

## INSTALLATION

---

- Consult all applicable codes before installing. Check fixture label(s) for correct power requirements and supply the correct voltage from a suitable, protected (fused), and grounded power source.

### CAUTION!

**Other voltages will void fixture warranty and do permanent damage to the entire unit. Fixtures should be operated continuously to preclude the development of mold and bacteria.**

- The lamp access door panel is to be interlocked with the power source to turn lamp(s) off when the system is opened. It should have signs (provided) in appropriate languages alerting maintenance personnel to the possible hazard of looking at or exposing skin to UVC energy. Service accesses may be equipped with a glass or polycarbonate window for visual inspection of lamps. UVC energy does not penetrate common glass or polycarbonate.
- UVC energy may damage some plastics (with the exception of UV rated and HVAC-style drain pans). Wrap suspect items with aluminum tape; use metallic conduit or use other appropriate shielding where these items may be in "line of sight" of UVC.
- Determine the most desirable location for the intended use and install reflecting material (optional, but recommended).
- Use dimensions provided on product submittal drawing to cut access hole as appropriate and drill mounting holes for install fixture(s) and plug in (if 120V) or wire to code (if 208, 230 or 277V).
- Install lamp(s) in fixture(s) being careful not to touch lamp glass with bare hands. Lamps are installed by sliding lamp through retaining clip and into holes in support bracket end, then retaining clip is to be slid over collar of lamp base and retaining clip nuts are to be tightened to hold clip in place.

### Warning!

**Over-tightening of retaining clip nuts may result in breakage of lamp base. Hand tools should be used. Do not use electric drills or screwdrivers to tighten lamp clip nuts.**

- Test all circuits and turn system power on. Each lamp will have a blue “glow” which indicates that fixtures are operating as designed.

**Caution!**

**UV lamps to be viewed only with proper protection for eyes and all exposed skin.**

- Affix warning label to all access panels and doors. Make certain labels are prominently visible and replace any worn labels.
- Lamps are designed for an effective life of 17,000 hours (approximately 2 years). Lamps must be changed at or before 17,000 hours to maintain designed efficacy.

## OPERATION & MAINTENANCE

---

- Fixtures should remain “on” at all times. Cycling fixtures on/off with blower operation or on a timer is not recommended and can severely shorten effective lamp life.
- Lamps are designed for an effective life of 17,000 hours (approximately 2 years). Lamps must be changed at or before 17,000 hours to maintain designed efficacy.
- Lamps should be visually inspected and cleaned (if necessary) every 3-6 months to ensure proper function.

**Caution!**

**UV lamps to be viewed only with proper protection for eyes and all exposed skin.**

Inspection/cleaning interval varies based on system conditions. Using 99% isopropyl alcohol and a lint-free cloth or wipe, clean lamps to remove any fingerprints, dust, etc. that have accumulated on lamp glass since last cleaning/installation.

## SPARE AND REPLACEMENT PARTS

---

<b>Part Number</b>	<b>Description</b>
SBL410	Lamp for all DC14 Fixtures
SBL430	Lamp for all DC16 Fixtures
SBL415	Lamp for all DC24 Fixtures
SBL420	Lamp for all DC33 Fixtures
SBL445	Lamp for all DC45 Fixtures
TXG270	Ballast for 120V DC Fixtures
TXG275	Ballast for 230/208V DC Fixtures
TXG280	Ballast for 277V DC Fixtures