

## **SERIES GL-QR/DC**

### **STANDARD COVERAGE, QUICK RESPONSE**

### **DOMED CONCEALED PENDENT SPRINKLER**

### **K-FACTOR 2.8, 4.2, 5.6, 8.0**

#### **GENERAL DESCRIPTION**

The Globe Series GL-QR/DC sprinklers are listed Quick Response domed concealed sprinklers which utilize a 3mm frangible glass bulb as the thermosensitive operating element. They are Listed and Approved as Standard Coverage sprinklers and are to be installed in accordance with the guideline of the appropriate Installation Standard being mandated by the AHJ (i.e. NFPA 13). While providing additional aesthetic appeal from that of a semi-recessed sprinkler, the GL-QR/DC additionally provides a 1/2" of total adjustment. The sprinkler is available in five temperatures and the domed cover plate is available in two temperatures. An optional protective cap (P/N 327119) can be ordered to prevent ceiling installation damage to the sprinkler. The protective cap is removed and the cover plate is installed when the system is ready for service. See "Installation" steps within this document.

#### **OPERATION**

The soldered cover plate drops off the retainer assembly when exposed to heat, as from a fire, that has reached the plate's Listed temperature rating, exposing the sprinkler above. As heat encompasses the glass bulb operating element of the sprinkler, the fluid in the bulb expands, compressing the air bubble within the bulb. When the air bubble can no longer compress, the fluid expansion causes breakage of the glass bulb, resulting in release of the water seal assembly and discharge of water from the sprinkler.

#### **FINISHES AND ACCESSORIES**

##### **Sprinkler Finish**

- Factory Bronze

##### **Dome Cover Plates**

- Chrome • White Painted • Black Painted • Custom

##### **NOTE:**

*Factory painted cover plates must not be repainted. Non-factory applied paint may adversely delay or prevent sprinkler operation in the event of a fire.*

##### **Wrenches**

- 1/2" NPT Recessed/Concealed
- 3/4" NPT Recessed/Concealed



#### **TECHNICAL DATA**

##### **SIN**

- GL2845, GL4245, GL5645, GL8145

##### **Approvals**

- cULus Listed

##### **Maximum Working Pressure**

- 175 psi (12 bar)
- Factory tested to 500 psi (34 bar)

##### **Minimum Operating Pressure**

- 7 psi (48 kPa)

##### **Temperature Ratings**

- See Table A for Temperature combinations

##### **Materials of Construction**

- Frame - bronze • Deflector - brass • Screw - brass
- Bulb seat - copper
- Spring - nickel alloy • Seal - teflon
- Bulb - glass with alcohol based solution, 3mm
- Cover Plate - Brass
- Upper Escutcheon Assembly - carbon steel

##### **NOTE:**

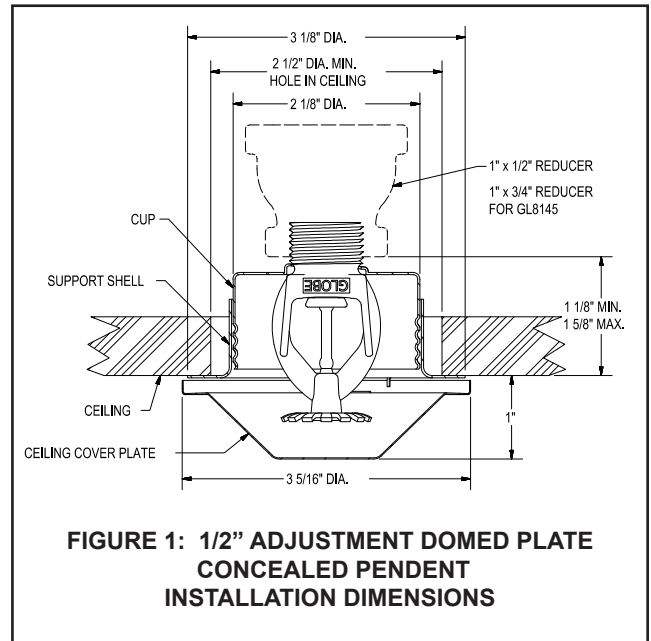
*Users should refer to Globe's web site ([www.globesprinkler.com](http://www.globesprinkler.com)) to assure that the most recent technical literature is being utilized.*

# INSTALLATION

## NOTICE

Do not install any bulb-type sprinkler if the bulb is cracked or there is loss of liquid from the bulb. Sprinklers should be tightened enough to obtain a leak-tight joint when water pressure is applied and/or hydrostatic test is performed. Sprinklers should not be overtightened as this can result in distortion and subsequent leakage. It is recommended not to exceed 14 ft.-lb. (19.0 Nm) torque for 1/2 inch NPT sprinkler threads; 20 ft.-lb. (26.8 Nm) to 3/4 inch NPT threads.

- Step 1.** Install pendent sprinklers in the pendent position, with the centerline of the sprinkler perpendicular to the mounting surface.
- Step 2.** Remove the Protective Cap.
- Step 3.** With pipe-thread sealant applied to the pipe threads, and using the Concealed Sprinkler Wrench P/N 325391 or P/N 325401 (FIGURE 2), install and tighten the Sprinkler/Concealed Cup Assembly into the fitting.
- Step 4.** Replace the Protective Cap by pushing it upwards until it bottoms out against the Support Cup. The Protective Cap helps prevent damage to the Deflector and Drop Pins during ceiling installation and/or during application of the finish coating of the ceiling.  
*NOTICE:*  
*The system is considered Out of Service when the protective caps are in place.*
- Step 5.** After the ceiling has been completed with the 2-1/2" (63.2mm) diameter hole, remove and discard the Protective Cap and verify that the Deflector has not been damaged. If the sprinkler has been damaged, replace the entire sprinkler assembly. Do not attempt to modify or repair.
- Step 6.** Thread on the Cover Plate Assembly until its flange contacts the ceiling. Never attempt to screw on the Cover Plate Assembly such that it lifts a ceiling panel out of its normal position. If the Cover Plate Assembly cannot be engaged with the Mounting Cup or the Cover Plate Assembly cannot be engaged sufficiently to contact the ceiling, the Sprinkler Fitting must be repositioned.



**TABLE A: cULus LISTING**

SIN	GL2845		GL4245		GL5645		GL8145
<b>K-FACTOR</b>	2.8 (40 metric)		4.2 (60 metric)		5.6 (80 metric)		8.0 (115 metric)
<b>NPT</b>	1/2" (15mm)		1/2" (15mm)		1/2" (15mm)		3/4" (20mm)
<b>COVER PLATE</b>	135°F (57°C)	155°F (68°C)	135°F (57°C)	155°F (68°C)	135°F (57°C)	155°F (68°C)	155°F (68°C)
<b>SPRINKLER TEMPERATURE</b>	135°F (57°C) 155°F (68°C)	155°F (68°C) 200°F (93°C)	135°F (57°C) 155°F (68°C)	155°F (68°C) 200°F (93°C)	135°F (57°C) 155°F (68°C)	155°F (68°C) 175°F (79°C) 200°F (93°C)	155°F (68°C) 175°F (79°C) 200°F (93°C)

**TABLE B: DOMED COVER PLATE PART NUMBERS**

DOMED COVER PLATE SIZE	WHITE 135°F (57°C)	CHROME 135°F (57°C)	WHITE 155°F (68°C)	CHROME 155°F (68°C)	BLACK 135°F (57°C)	BLACK 155°F (68°C)	CUSTOM 135°F (57°C)	CUSTOM 155°F (68°C)
3-1/4" DIA.	326048	326046	326053	326051	326048-B	326053-B	326049	326054

**CARE AND MAINTENANCE**

Prior to installation, it is important to read and follow the “Sprinkler Caution” sheet (GFS-840) included within each box of sprinklers. This sheet is available on Globe’s web site ([www.globesprinkler.com](http://www.globesprinkler.com)).

Store sprinklers in a cool, dry place. Exposure to extreme heat will damage the thermal sensing element, possibly resulting in premature activation. Avoid direct sunlight.

Replace any sprinkler that shows any corrosion, damage, or loss of liquid from the glass bulb.

Do not attempt to paint or alter the sprinkler’s coating or cover plate in any manner after leaving the manufacturing plant.

Do not attach wiring, ropes, decorations or fixtures to a sprinkler.

Absence of an escutcheon, used to cover a ceiling hole, may delay sprinkler operation in a fire situation.

It is the owner’s responsibility for inspection, testing and maintenance of the fire sprinkler system with all components and devices in accordance with the National Fire Protection Association Pamphlet 25 as well as any other requirements as set forth by the local Authority Having Jurisdiction (AHJ).

**GLOBE® PRODUCT WARRANTY**

Globe agrees to repair or replace any of its manufactured products found to be defective in material or workmanship for a period of one year from date of shipment.

For specific details of our warranty please refer to Price List Terms and Conditions of Sale (Our Price List).

**ORDERING INFORMATION**

**SPECIFY**

- SPRINKLER
  - Quantity • SIN • Temperature Rating • Finish • Part Number

**GL2846**

SPRINKLERS	PART NUMBER
135°F (57°C)	284613501
155°F (68°C)	284615501
175°F (79°C)	284617501
200°F (93°C)	284620001

**GL4245**

SPRINKLERS	PART NUMBER
135°F (57°C)	424513501
155°F (68°C)	424515501
175°F (79°C)	424517501
200°F (93°C)	424520001

**GL5645**

SPRINKLERS	PART NUMBER
135°F (57°C)	564513501
155°F (68°C)	564515501
175°F (79°C)	564517501
200°F (93°C)	564520001

**GL8145**

SPRINKLERS	PART NUMBER
155°F (68°C)	814515501
175°F (79°C)	814517501
200°F (93°C)	814520001

**COVER PLATES**

SEE TABLE B

- WRENCH
  - Quantity • Part Number
  - 1/2" NPT . . . . . 325391
  - 3/4" NPT . . . . . 325401
- PROTECTIVE CAP
  - Quantity • Part Number 327119

