

Recessed Sprinkler - A

Model A Recessed Pendent Automatic Sprinkler

Manufactured by: Central Sprinkler Company
451 North Cannon Avenue, Lansdale, Pennsylvania 19446



Product Description

The Central Model A Recessed Pendent Automatic Sprinkler is a standard spray sprinkler. It incorporates the Central Model A center strut mechanism with a special two-piece recessed escutcheon assembly permitting 1/2" (15mm) of field-adjustment. Unlike most other recessed sprinklers, the upper escutcheon support piece is factory installed on the base of the sprinkler frame, assuring a Listed installation. The ceiling escutcheon plate is easily installed after the sprinkler is in place either by the standard "push-on" escutcheon or the special "thread-on" escutcheon. This feature allows removal of ceiling panels for easy access to ceiling equipment without taking the system out of service to remove the sprinkler.

The Model A Recessed Pendent Sprinkler is available with a 3/8" (9.5mm), 7/16" (11.0mm), or 17/32" (13.5mm) orifice.

The Model A Sprinklers are available in two standard finishes. The mating escutcheon plate is available in three standard finishes with additional special finishes available upon request.

Operation: A fusible alloy is sealed into a bronze center strut with a stainless steel ball. When the alloy melts at its rated temperature, the ball is forced upward into the center strut, releasing the two ejectors and operating the sprinkler. Unlike most other sprinkler designs, the alloy is not exposed to atmospheric conditions

that could affect its proper operation. It is also less susceptible to mechanical damage because there are no protruding links or levers.



Technical Data

Model: A

Style: Recessed Pendent (*adjustable*)

Wrench: Universal (#1122 or #1123)

Orifice Size	K-Factor (metric)	Thread
3/8" (9.5mm)	2.7 (38.9)	1/2" (15mm) N.P.T.
7/16" (11.0mm)	4.2 (60.6)	1/2" (15mm) N.P.T.
17/32" (13.5mm)	7.8 (112.5)	1/2" (15mm) N.P.T.
17/32" (13.5mm)	8.1 (116.8)	3/4" (20mm) N.P.T.

Temperature Rating: 135°F/57°C,
165°F/74°C,
212°F/100°C

Approvals: U. L., U.L.C.,
M.E.A. (# 375-75-SA)

Maximum Working Pressure:
175 psi (12.1 bar)

Factory Hydro Test:
100% @ 500 psi (34.5 bar)

Sprinkler Standard Finishes: brass,
chrome plated, **white painted
**UL Only

Sprinkler Corrosion Resistant Coatings
(UL Only):

- wax & wax-over-lead - 165° & 212°
- Lead - 135°, 165°, 212°



3/8" (9.5mm), 7/16" (11.0mm), or 17/32" (13.5mm) orifice Adjustable Recessed Pendent Automatic Sprinkler

Escutcheon (*metal*): brass plated,
chrome plated, white painted

*Escutcheon (*plastic*): brass plated,
chrome plated, white painted

*Available for push-on only.

Length: Nominal 2 3/8" (60.3mm) (plus
5/16" (7.9mm) pintle for 3/8", 7/16" and
17/32" orifice by 1/2" thread)

Width:

Sprinkler: 1 1/2" (38.1mm) across frame
arms

Upper Support Piece: 2 1/4" (57.2mm) dia.
Ceiling Escutcheon: 3 1/4" (82.6mm) dia.

Adjustable Range Below Ceiling:

1/2" to 1" (12.7mm to 25.4mm)

Weight: 4.2 oz. (119 g)

Figure 1
 $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{7}{16}$ " , $\frac{17}{32}$ " **Model A Recessed Pendent Sprinkler**
(Push-on Escutcheon)

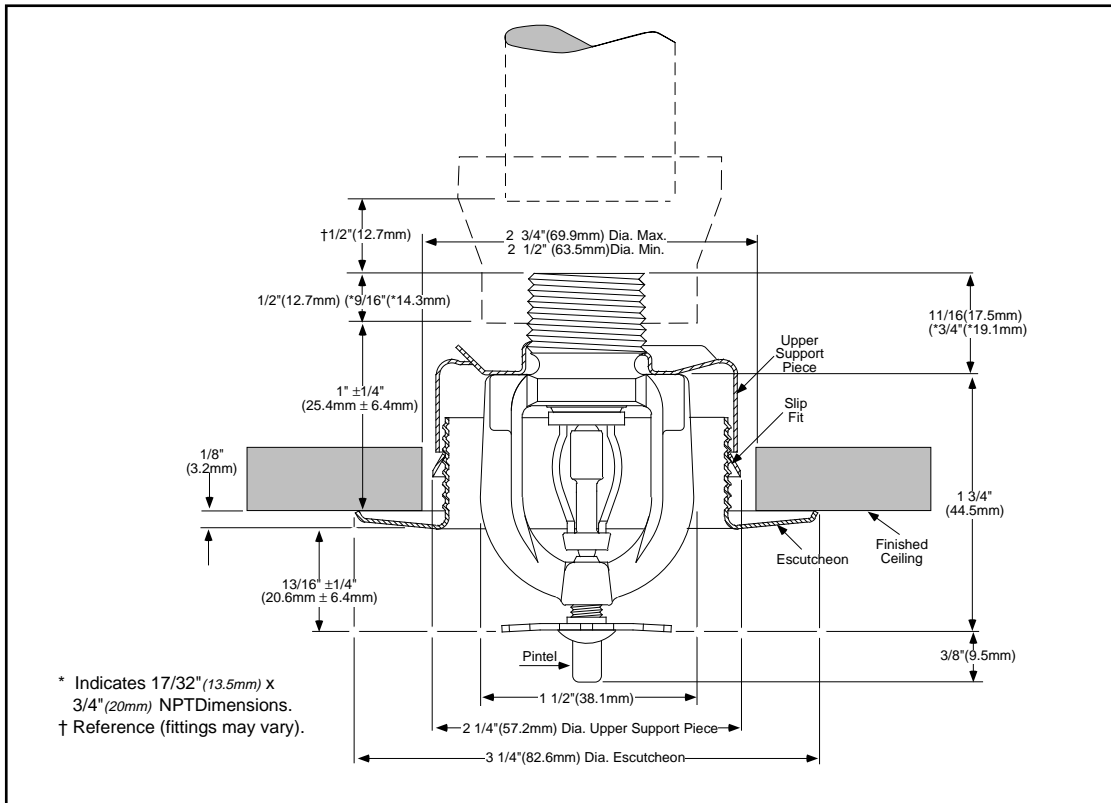
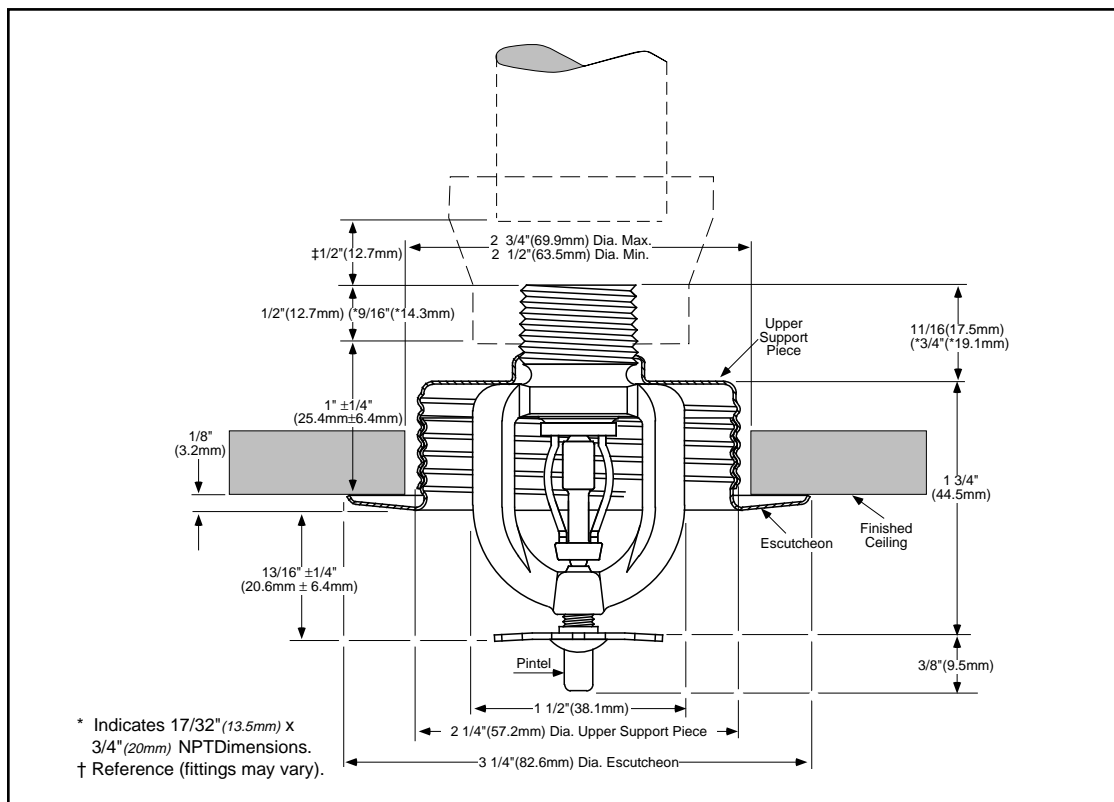


Figure 2
 $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{7}{16}$ " , $\frac{17}{32}$ " **Model A Recessed Pendent Sprinkler**
(Threaded Escutcheon)





Design Data

Design Requirements — Standard Applications

Model A Sprinklers are Listed for standard area coverages and standard flow and pressure requirements as specified in the NFPA Standards.



Installation

All Model A Sprinklers must be installed according to NFPA Standards. Deviations from these requirements and standards, or any alteration to the sprinkler itself will void any warranty made by Central Sprinkler Company. In addition, installation must also meet local government provisions, codes, and standards as applicable.

The system piping must be properly sized to insure the minimum required flow rate at the sprinkler. Check for the proper model, style, orifice size, and temperature rating prior to installation. Install sprinklers after the piping is in place to avoid mechanical damage; replace any damaged units. Wet pipe systems must be protected from freezing. Refer to Central Sprinkler Model A-1 dry pendent for use in dry pipe sprinkler installations.

Upon completion of the installation, the system must be tested per recognized standards.

In the event of a thread leak, remove the unit, apply new pipe joint compound or tape, and reinstall.

Installation Sequence

Step 1. The unit must be installed in the pendent position.

Step 2. The sprinkler fitting must be a nominal 1" (plus or minus 1/4") behind the finished ceiling line. Final adjustments are made via the push-on or thread-on escutcheon plate to compensate for variations in the fittings.

Do not use the escutcheon plate to hold the unit in position. The sprinkler will only function properly when the system piping is anchored to the building structure. Otherwise, reaction forces from system initiation could alter the sprinkler alignment and disrupt the distribution pattern.

Step 3. Use only a non-hardening pipe joint compound or Teflon* tape. Apply only to the male threads.

*Teflon is a trademark of the DuPont Corp.

Step 4. Hand tighten the sprinkler into the fitting. Use a Central Universal Sprinkler Wrench to tighten the unit into the fitting. A leak tight joint requires only 7 to 14 ft.-lbs. (9.5 to 19.0 Nm) of torque; a tangential force of 14 to 28 lbs. (62.3 to 124.5 N) delivered through a 6" (150 mm) ratchet handle will deliver adequate torque. Torque levels over 21 ft.-lbs. (28.6 Nm) may distort the orifice seal, resulting in leakage.

1/2" Universal Wrench for 1/2" N.P.T. Thread (Part #1122)

3/4" Universal Wrench for 3/4" N.P.T. Thread (Part #1123)



Recessed Escutcheon Tool (Part # 10654000)



Step 5. To install the escutcheon plate, align it with and push or thread it over the sprinkler body and into the upper support piece until the outer edge of the escutcheon meets the mounting surface. The recessed escutcheon tool may be used to install the push-on escutcheon plate easily from the floor.

Do not over- or under-tighten the sprinkler to compensate for inaccurate escutcheon plate adjustment.

Caution: Special care must be taken when installing with a CPVC system. Sprinklers must be installed only after the system has been tested and drained, to ensure that no primer or cement accumulates within the sprinkler.



Care & Maintenance

Sprinklers must be handled carefully. They must not be transported or stored where ambient temperatures may exceed 100°F/ 38°C. For best results, store them in a cool dry location in the original shipping package.

Do not install sprinklers that have been dropped or visibly damaged. Sprinklers must never be painted, coated, plated, or altered in any other way from manufactured condition or they may not function properly. Any sprinklers altered in such manner must be replaced.

The owner is responsible for the proper working condition of all fire protection devices and accessories. The NFPA Standard 25 entitled, "Inspection, Testing and Maintenance of Water-Based Fire Protection Systems", contains guidelines and minimum maintenance requirements. Furthermore, the local Authority Having Jurisdiction may have additional regulations and requirements for maintenance, testing, and inspection that must be obeyed.

It is advisable to have sprinkler systems inspected regularly by a qualified inspection service. Length

of time between such inspections can vary due to accessibility, ambient atmosphere, water supply, and site activity.

Do not attempt to reassemble or otherwise reuse a sprinkler that has operated. Replace any sprinkler exhibiting corrosion or damage. Always use new sprinklers of the same type and temperature rating as replacements.

Because the discharge pattern is critical to protection of life and property, nothing should be hung or attached to the sprinkler unit that would disrupt the pattern. Such obstructions must be removed. In the event that construction has altered the original configuration, additional sprinklers should be installed to maintain protection level.

Do not attempt to replace sprinklers without first removing the fire protection system from service. Be certain to secure permission from all authorities having jurisdiction, and notify all personnel who may be affected during system shutdown. A fire watch during maintenance periods is a wise precaution.

To remove the system from service mode, first refer to the system operating guide and valve instructions. Drain water and relieve pressure in the pipes. Remove the existing unit and install the replacement, using only the special sprinkler wrench. Be certain to match model, style, orifice, and temperature rating.

A fire protection system that has been shut off after activation should be returned to service immediately. Inspect the entire system for damage and replace or repair as necessary. Sprinklers that did not operate but were subjected to corrosive elements of combustion or excessive temperatures should be inspected and replaced if need be. The *Authority Having Jurisdiction* will detail minimum replacement requirements and regulations.

Guarantee: Central will repair and/or replace any products found to be defective in material or workmanship within a period of one year from date of shipment. Please refer to the current Price List for further details of the warranty.



Ordering Information

Ordering Information: When placing an order, indicate the full product name. Please specify the quantity, model, style, orifice size, temperature rating, type of finish or coating, type of escutcheon, push-on or threaded, (push-on is standard), and sprinkler wrench.

Availability and Service: Central sprinklers, valves, accessories, and other products are available throughout the U.S. and Canada, and internationally, through a network of Central Sprinkler distribution centers. You may write directly to Central Sprinkler Company, or call (215) 362-0700 for the distributor nearest you.

Conversion Table:

1 inch = 25.400 mm
1 foot = 0.3048 m
1 pound = 0.4536 kg
1 foot pound = 1.36 Nm
1 psi = 6.895 kpa
= 0.0689 bar
= 0.0703 kg/cm²
1 U.S. gallon = 3.785 dm³
= 3.785 liters

Conversions are approximate.



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