



TECHNICAL DATA

CONCEALED SPRINKLER COVER PLATE ASSEMBLIES

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

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1. DESCRIPTION

Viking Cover Plates are low-profile covers used with Viking Concealed Sprinklers. The covers are installed flush with the ceiling or wall to provide a smooth appearance, and are available in several [standard decorative finishes](#) to meet design requirements. Viking Cover Plates may also be custom ordered with any color by any paint manufacturer. In addition, customized screen printing is available on select cover plates. Refer to Figure 2 and Table 4 for more information.

2. LISTINGS AND APPROVALS

Refer to the Approval Charts on the applicable Viking Sprinkler Technical Data Pages.

UL Listed Screen Print - Brass, Painted, or Stainless Steel only. Refer to Figure 2.

FM Approved Screen Print - Brass, Painted, or Stainless Steel only. Refer to Figure 2.



WARNING: Cancer and Reproductive Harm-
www.P65Warnings.ca.gov

3. TECHNICAL DATA

Specifications:

Refer to the appropriate sprinkler technical page for sprinkler specifications.

Material Standards:

Cover Plate Assembly: Copper UNS-C11000, Brass UNS-C26000, UNS-C26800, or Stainless Steel UNS-S30400

Spring: Nickel Alloy

Solder: Eutectic (non-Eutectic for cover 15765)

Ordering Information: (Also refer to the current Viking price list.)

Refer to Tables 1a, 1b, and 2.

Specify finish and temperature rating of the cover plate assembly by adding the appropriate suffixes for the finish and the cover temperature rating to the base part number:

For example, cover 23190 with a Polished Chrome finish and a 165 °F (74 °C) temperature rating = 23190FC.

Available Finishes And Temperature Ratings:

Refer to Tables 1 - 3.

4. INSTALLATION*

A. After installation of the Concealed Sprinkler, testing of the system, repairing of all leaks, and installation and painting of the wall or ceiling, the concealed sprinkler cover plate assembly may be attached.

1. Remove the plastic protective cap from the sprinkler.

2. Remove the cover plate assembly from the protective box, taking care not to damage the assembly.

3. Gently place the base of the cover plate assembly over the sprinkler protruding through the opening** in the ceiling or wall.

**Size depends on the sprinkler model used. Refer to appropriate sprinkler data page.

4. Carefully push the cover plate assembly onto the sprinkler, using even pressure with the palm of the hand, until the unfinished brass flange of the cover plate base (or the cover adapter, if used) touches the surface of the ceiling or wall. The maximum adjustment available is 1/2" (12.7 mm) [1/4" (6.4 mm) for sprinklers VK480, VK481 and VK680]. DO NOT MODIFY THE UNIT. If necessary, re-cut the sprinkler nipple.

B. DISASSEMBLY: Cover plates can be removed either by gently unthreading them or pulling them off the sprinkler body (depends on the sprinkler model used).

C. RE-ASSEMBLY: The push-on feature of these cover plate assemblies allows easy installation of the cover plates.

1. Gently place the base of the cover plate assembly over the sprinkler.

2. Push the cover plate assembly onto the sprinkler, using even pressure with the palm of the hand, until the unfinished brass flange of the cover plate base touches the ceiling or wall.

* See the care and handling **Cautions and guidelines on the last page of this document for important safety information.**

5. OPERATION

During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches. Continued heating of the sprinkler causes the operating element to fuse or shatter (depending on the type of sprinkler), releasing the sealing assembly. Water flowing through the sprinkler orifice strikes the deflector or flow shaper, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

Viking concealed sprinklers and cover assemblies are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.



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TABLE 1: COMMERCIAL COVER ASSEMBLIES

Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
09804	Flat Pendent	165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK404 (Obs)	20a-e
					VK454 (Obs)	57a-e
11225	Flat Pendent	135 °F (57 °C) = A	2-3/4" (70 mm)	F	VK404 (Obs)	20a-e
					VK454 (Obs)	57a-e
11451	Flat Sidewall	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK408 (Obs)	63a-e
11697	Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK404, VK454 (Obs)	57a-f
12381	Domed Pendent / Dry Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-1/8" (80 mm)	F, B, M-/W, M-/I, M-/B	VK102 and VK202	F_101912
					VK190	F_092003
					VK192	F_081311
					VK194	F_092103
					VK196	F_092203
					VK302	F_033614
					VK352	F_102112
					VK353	F_102212
					VK614 and VK616	F_061603
VK618	F_061503					
13501	Domed Sidewall	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-1/8" (80 mm)	F, M-/W, M-/I, M-/B	VK630 VK631 (Obs)	F_102805 84h-m
23190 ⁴	Flat Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK461	F_091506
					VK462 and VK463	F_103005
					VK462, VK464 MRI	F_062908
					VK464	F_021606
					VK465	F_032107
					VK632 and VK634	F_080107
23174 ⁴	Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK461	F_091506
					VK462 and VK463	F_103005
					VK462, VK464 MRI	F_062908
					VK464	F_021606
					VK465	F_032107
					VK632 and VK634	F_080107
VK492	F_101615					

Notes

¹ Base part number is shown. For complete part number, add finish suffix and temperature suffix.

² Custom colors are also available. Refer to the sprinkler data page.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

⁴ Screen Printing is available for this cover. Refer to Figure 2.

Table continues on next page.



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TABLE 1: COMMERCIAL COVER ASSEMBLIES (continued)

Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
23174-/CR	Cleanroom Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F-/CR, /W/CR, /I/CR, /B/CR	VK462 (QR)	F_022409
23174-/CR	Cleanroom Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F-/CR, /W/CR, /I/CR, /B/CR	VK464 (SR)	F_022409
15765-/CR	Cleanroom Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F-/CR, /W/CR, /I/CR, /B/CR	VK469 (QR)	F_120508
23179 ⁴	Flat Commercial (square cover plate)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK461	F_091506
					VK462 and VK463	F_100305
					VK464	F_021606
					VK465	F_032107
					VK632 and VK634	F_080107
15765 ⁴	Flat Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, M-/W, M-/I, M-/B	VK492	F_101615
					VK469	F_120508
					VK636	F_121009
					VK538	F_050511
16207 ⁴	Flat HSW (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK481	F_020312
16207 ⁴	Flat HSW (large diameter)	135 °F (57 °C) = A	3-5/16" (84 mm)	F, M-/W, M-/I, M-/B	VK680	F_050611
23183 ⁴	Stainless Steel Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	--	VK462	F_100305
23193 ⁴	Stainless Steel Flat Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	--	VK462	F_100305
21878 ⁴	Stainless Steel Flat Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	--	VK538	F_050511

Notes

¹ Base part number is shown. For complete part number, add finish suffix and temperature suffix.

² Custom colors are also available. Refer to the sprinkler data page.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

⁴ Screen Printing is available for this cover. Refer to Figure 2.



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TABLE 2: RESIDENTIAL COVER ASSEMBLIES

Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
12207	Domed Residential	135 °F (57 °C) = A	3-1/8" (80 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK466	F_091606
					VK458	F_092305
					VK468	F_020206
23190 ⁴	Flat Residential	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK457 ⁵ (Obs)	F_072607 (Obs)
					VK474	F_012109
					VK4570 ⁵ (Obs)	F_100710 (Obs)
					VK4740	F_012811
					VK488	F_073012
					VK4880	F_061214
					VK494	F_012116
					VK4940	F_120517
					VK496	F_032218
					VK4960	F_012419
10786	Flat Residential	135 °F (57 °C) = A	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK425 (Obs)	147a-c(Obs)
					VK457 ⁵ (Obs)	F_072607 (Obs)
23174 ⁴	Flat Residential (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK474	F_012109
					VK4570 ⁵ (Obs)	F_100710 (Obs)
					VK4740	F_012811
					VK488	F_073012
					VK4880	F_061214
					VK494	F_012116
					VK4940	F_120517
					VK496	F_032218
					VK4960	F_012419
					VK498	F_112817
VK4980	F_120617					

Notes

¹ Base part number is shown. For complete part number, add finish suffix and temperature suffix.

² Custom colors are also available. Refer to the sprinkler data page.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

⁴ Screen Printing is available for this cover. Refer to Figure 2.

⁵ Not compatible with the 165 °F (74 °C) temperature rated covers.

Table continues on next page.



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Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
23179 ⁴	Flat Residential (square cover plate)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK457 ⁵ (Obs)	F_072607 (Obs)
					VK474	F_012109
					VK4570 ⁵ (Obs)	F_100710 (Obs)
					VK4740	F_012811
					VK488	F_073012
					VK4880	F_061214
					VK494	F_012116
					VK4940	F_120517
					VK496	F_032218
					VK4960	F_012419
					VK498	F_112817
VK4980	F_120617					
16207 ⁴	Flat HSW Residential (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	M-/W, F	VK480	F_121609
					VK490	F_032116
					VK4800	F_100810
23183 ⁴	Stainless Steel Flat Residential (large diameter)	135 °F (57 °C) = A	3-5/16" (84 mm)	--	VK494	F_012116
23193 ⁴	Stainless Steel Flat Residential	135 °F (57 °C) = A	2-3/4" (70 mm)	--	VK494	F_012116

Notes

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² Custom colors are also available. Refer to the sprinkler data page.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

⁴ Screen Printing is available for this cover. Refer to Figure 2.

⁵ Not compatible with the 165 °F (74 °C) temperature rated covers.



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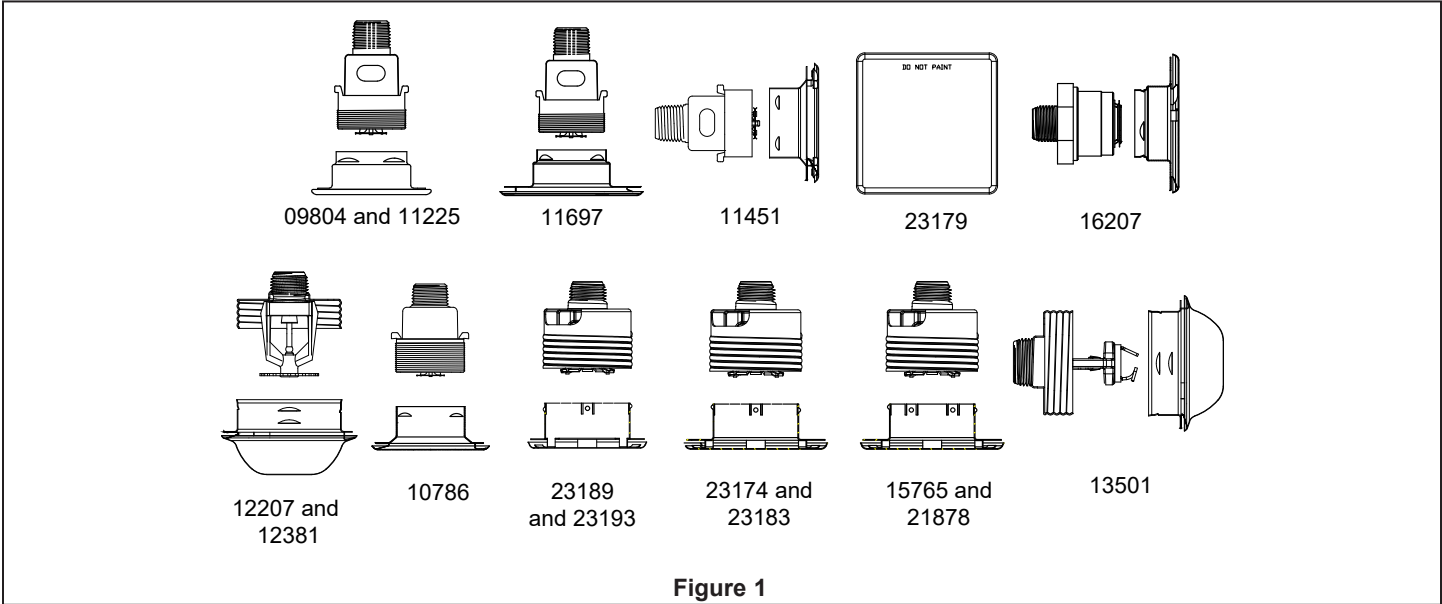


Figure 1

Table 3	
Cover Plate Base Part Numbers	Compatible SIN's
12381	VK102, VK190, VK192, VK194, VK196, VK202, VK302, VK352, VK353, VK 614, VK616, VK618
09804, 11225, 11451	VK404, VK454
09804, 11225	VK405
11451	VK408
10786	VK425
23190, 23174, 23179	VK457, VK4570, 461, VK463, VK464, VK465, VK474, VK4740, VK488, VK4880, VK4940, VK496, VK4960, VK498, VK4980, VK632, VK634
23190, 23174, 23179, 23193, 23183	VK462, VK494
12207	VK458, VK466, VK468
13501	VK630, VK631
15765	VK469, VK636
16207	VK480, VK4800, VK481, VK490, VK680
15765, 21878	VK538



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⚠ CAUTION

CONCEALED COVER ASSEMBLIES ARE FRAGILE. TO ASSURE SATISFACTORY PERFORMANCE OF THE PRODUCT, HANDLE WITH CARE.

NOTICE

FOR COMPLETE CARE, HANDLING, & INSTALLATION INSTRUCTIONS, REFER TO THE SPRINKLER DATA PAGE AND THE APPROPRIATE SPRINKLER GENERAL CARE, INSTALLATION, AND MAINTENANCE GUIDE.

GENERAL HANDLING AND STORAGE INSTRUCTIONS:

- Do not store in temperatures exceeding 100 °F (38 °C). Avoid direct sunlight and confined areas subject to heat.
- Protect sprinklers and cover assemblies during storage, transport, handling, and after installation.
 - Use original shipping containers.
 - Do not place sprinklers or cover assemblies loose in boxes, bins, or buckets.
- Keep the sprinkler bodies covered with the protective sprinkler cap any time the sprinklers are shipped or handled, during testing of the system, and while finish work is being completed.
- Use only the designated Viking sprinkler wrench (refer to the appropriate sprinkler data page) to install these sprinklers. **NOTE:** The protective cap is temporarily removed during installation and then placed back on the sprinkler for protection until finish work is completed.
- Do not over-tighten the sprinklers into fittings during installation.
- Do not use the sprinkler deflector to start or thread the sprinklers into fittings during installation.
- Do not attempt to remove drywall, paint, etc., from the sprinklers.
- Remove the plastic protective cap from the sprinkler before attaching the cover plate assembly. **PROTECTIVE CAPS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!**



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Screen Print area:

2-3/4" (70 mm) Plates = Ø2.395" (61 mm)
 3-5/16" (84 mm) Plates = Ø2.957" (75 mm)

Design must include the text
 "DO NOT PAINT"

Figure 2

TABLE 4: Screen Printed Cover Plates

Screen Printing is available on Brass or Painted finishes, or on the Stainless Steel material.
 Refer to Tables 1-3.

	Sprinkler SIN(s)	Cover Plate Base Part Number	Style	Size	UL		FM	
					Ordering Suffix			
					A 135 °F (57 °C)	C 165 °F (74 °C)	A 139 °F (59 °C)	C 165 °F (74 °C)
Residential	VK494	23190SC	Round	2-3/4" (70 mm)	✓	✓		
		23174SC	Round	3-5/16" (84 mm)	✓	✓		
		23179SC	Square	3-5/16" (84 mm)	✓	✓		
		23193SC	SST Round	2-3/4" (70 mm)	✓	✓		
		23183SC	SST Round	3-5/16" (84 mm)	✓	✓		
	VK4940	23190SC	Round	2-3/4" (70 mm)	✓	✓		
		23174SC	Round	3-5/16" (84 mm)	✓	✓		
		23179SC	Square	3-5/16" (84 mm)	✓	✓		
		VK496 VK4960 VK498 VK4980	23179SC	Square	3-5/16" (84 mm)	✓	✓	
	VK480 VK4800	16207SC	Round	3-5/16" (84 mm)	✓			
VK490	16207SC	Round	3-5/16" (84 mm)	✓	✓			
Commercial	VK462	23190SC	Round	2-3/4" (70 mm)	✓	✓	✓	✓
		23174SC	Round	3-5/16" (84 mm)	✓	✓	✓	✓
		23179SC	Square	3-5/16" (84 mm)	✓		✓	✓
		23193SC	SST Round	2-3/4" (70 mm)	✓	✓	✓	✓
		23183SC	SST Round	3-5/16" (84 mm)	✓	✓	✓	✓
	VK461	23190SC	Round	2-3/4" (70 mm)	✓	✓	✓	✓
		23174SC	Round	3-5/16" (84 mm)	✓	✓	✓	✓
		23179SC	Square	3-5/16" (84 mm)	✓		✓	✓
	VK463 VK464 VK465 VK632 VK634	23190SC	Round	2-3/4" (70 mm)	✓	✓		
		23174SC	Round	3-5/16" (84 mm)	✓	✓		
		23179SC	Square	3-5/16" (84 mm)	✓			
	VK492	23190SC	Round	2-3/4" (70 mm)	✓	✓	✓	✓
		23174SC	Round	3-5/16" (84 mm)	✓	✓	✓	✓
		23179SC	Square	3-5/16" (84 mm)	✓	✓	✓	✓
	VK481	16207SC	Round	3-5/16" (84 mm)	✓	✓	✓	✓
VK680	16207SC	Round	3-5/16" (84 mm)	✓				
VK538	15765SC	Round	3-5/16" (84 mm)	✓	✓			
	21878SC	SST Round	3-5/16" (84 mm)	✓	✓			
VK469 VK636	15765SC	Round	3-5/16" (84 mm)	✓	✓			

Contact Business Development for quotes or more information or visit
 The Viking Corporation website www.vikinggroupinc.com