



## 47 Captive Screws

Styled knob series · M3 thread size

- Smooth knob meets UL-1950
- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plated, chromate, plus sealer

Flare-in and Floating:

Aluminum, natural

P.C. board style: 300 Series stainless steel, passivated

Knob:

Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

Installation Notes

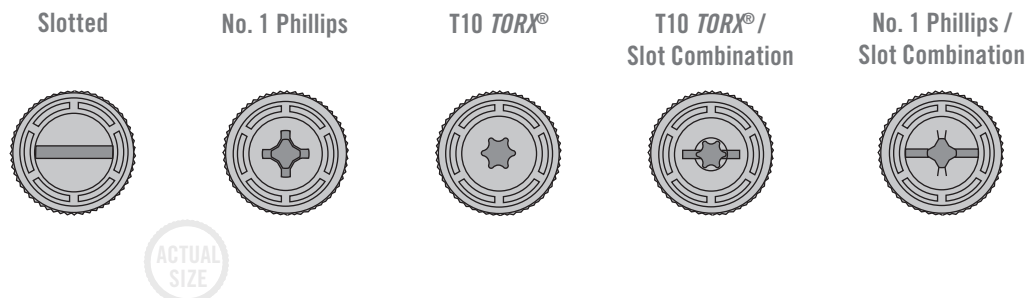
See pages 468-469, 543

### Notes



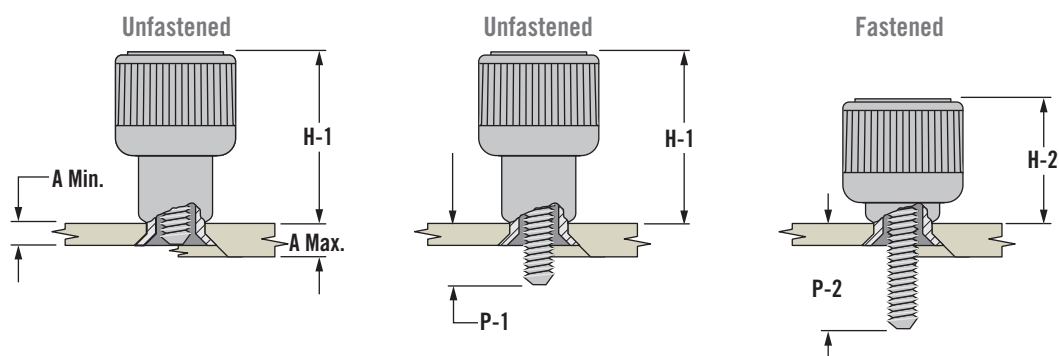
To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

### Recess Styles

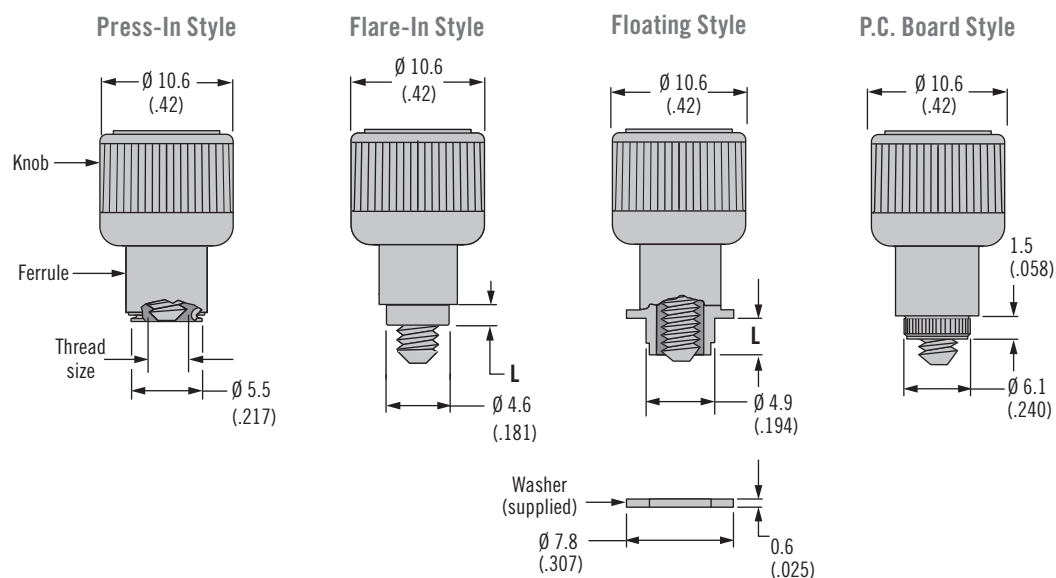


### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



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Dimensions in millimeters (inch) unless otherwise stated

| Installation Style | Knob Height   |               | Outer Panel Dimensions |               | B            | Total Float   | Flange Length L | Screw Projection Beyond Outer Surface of Panel |              | Part Number    |                 |              |                          |                             |              |              |              |              |
|--------------------|---------------|---------------|------------------------|---------------|--------------|---------------|-----------------|------------------------------------------------|--------------|----------------|-----------------|--------------|--------------------------|-----------------------------|--------------|--------------|--------------|--------------|
|                    | H-1           | H-2           | A Min.                 | A Max.        |              |               |                 | P-1                                            | P-2          | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |              |              |              |              |
| Press-In Style     | 11.3<br>(.45) | 8.3<br>(.33)  | 0.9<br>(.036)          | ~             | ~            | 0.7<br>(.03)  | ~               | 0.8 (.03)                                      | 3.8 (.15)    | 47-90-101-24   | 47-90-121-24    | 47-90-141-24 | 47-90-161-20             | 47-90-181-24                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 2.5 (.10)                                      | 5.5 (.22)    | 47-91-101-24   | 47-91-121-24    | 47-91-141-24 | 47-91-161-20             | 47-91-181-24                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 4 (.16)                                        | 7 (.28)      | 47-92-101-24   | 47-92-121-24    | 47-92-141-24 | 47-92-161-20             | 47-92-181-24                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 5.6 (.22)                                      | 8.6 (.34)    | 47-93-101-24   | 47-93-121-24    | 47-93-141-24 | 47-93-161-20             | 47-93-181-24                |              |              |              |              |
| P.C. Board Style   | 11.5<br>(.45) | 8.3<br>(.33)  | 1.6<br>(.061)          | ~             | ~            | 0.7<br>(.03)  | ~               | 1.5 (.06)                                      | 4.5 (.18)    | 47-95-101-34   | 47-95-121-34    | 47-95-141-34 | 47-95-161-30             | 47-95-181-34                |              |              |              |              |
| Flare-In Style     | 11.5<br>(.45) | 8.1<br>(.32)  | 0.8 (.031)             | 1.5 (.058)    | 0.4 (.015)   | 0.7<br>(.03)  | 1.0 (.041)      | 0.8 (.03)                                      | 4 (.16)      | 47-80-101-14   | 47-80-121-14    | 47-80-141-14 | 47-80-161-10             | 47-80-181-14                |              |              |              |              |
|                    |               |               | 1.5 (.059)             | 2.5 (.098)    | 0.4 (.015)   |               | 1.8 (.070)      | 1.5 (.06)                                      | 4.7 (.19)    | 47-80-102-14   | 47-80-122-14    | 47-80-142-14 | 47-80-162-10             | 47-80-182-14                |              |              |              |              |
|                    |               |               | 2.5 (.098)             | 4 (.156)      | 0.8 (.031)   |               | 2.6 (.104)      | 2.5 (.10)                                      | 5.7 (.22)    | 47-80-103-14   | 47-80-123-14    | 47-80-143-14 | 47-80-163-10             | 47-80-183-14                |              |              |              |              |
|                    |               |               | 4 (.157)               | 5.6 (.219)    | 2.4 (.093)   |               | 4.2 (.166)      | 4 (.16)                                        | 7.2 (.28)    | 47-80-105-14   | 47-80-125-14    | 47-80-145-14 | 47-80-165-10             | 47-80-185-14                |              |              |              |              |
|                    |               |               | 5.6 (.220)             | 7.1 (.281)    | 4 (.156)     |               | 5.8 (.299)      | 5.6 (.22)                                      | 8.8 (.35)    | 47-80-107-14   | 47-80-127-14    | 47-80-147-14 | 47-80-167-10             | 47-80-187-14                |              |              |              |              |
|                    |               |               | 0.8 (.031)             | 1.5 (.058)    | 0.4 (.015)   |               | 1.0 (.041)      | 2.5 (.10)                                      | 5.7 (.22)    | 47-81-101-14   | 47-81-121-14    | 47-81-141-14 | 47-81-161-10             | 47-81-181-14                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 4 (.16)                                        | 7.2 (.28)    | 47-82-101-14   | 47-82-121-14    | 47-82-141-14 | 47-82-161-10             | 47-82-181-14                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 5.6 (.22)                                      | 8.8 (.35)    | 47-83-101-14   | 47-83-121-14    | 47-83-141-14 | 47-83-161-10             | 47-83-181-14                |              |              |              |              |
|                    |               |               | 1.5 (.058)             | 2.5 (.098)    | 0.4 (.015)   |               | 1.8 (.070)      | 3.2 (.13)                                      | 6.4 (.25)    | 47-81-102-14   | 47-81-122-14    | 47-81-142-14 | 47-81-162-10             | 47-81-182-14                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 4.7 (.19)                                      | 7.9 (.31)    | 47-82-102-14   | 47-82-122-14    | 47-82-142-14 | 47-82-162-10             | 47-82-182-14                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 6.3 (.25)                                      | 9.5 (.37)    | 47-83-102-14   | 47-83-122-14    | 47-83-142-14 | 47-83-162-10             | 47-83-182-14                |              |              |              |              |
|                    |               |               |                        |               |              |               |                 | 1.9 (.07)                                      | 5.1 (.20)    | 47-80-110-14   | 47-80-130-14    | 47-80-150-14 | 47-80-170-10             | 47-80-190-14                |              |              |              |              |
|                    |               |               | Floating Style         | 11.4<br>(.45) | 8.6<br>(.34) |               | ~               | 0.8<br>(.031)                                  | 2<br>(.080)  | 2.0<br>(.08)   | 2.6<br>(.101)   | 3.4 (.13)    | 6.6 (.26)                | 47-81-110-14                | 47-81-130-14 | 47-81-150-14 | 47-81-170-10 | 47-81-190-14 |
|                    |               |               |                        |               |              |               |                 |                                                |              |                |                 | 5 (.19)      | 8.2 (.32)                | 47-82-110-14                | 47-82-130-14 | 47-82-150-14 | 47-82-170-10 | 47-82-190-14 |
| 0.8<br>(.031)      | 1.6<br>(.063) | 2.8<br>(.111) |                        |               |              | 3.4<br>(.132) | 1.9 (.07)       | 5.1 (.20)                                      | 47-80-111-14 |                | 47-80-131-14    | 47-80-151-14 | 47-80-171-10             | 47-80-191-14                |              |              |              |              |
|                    |               |               |                        |               |              |               | 3.4 (.13)       | 6.6 (.26)                                      | 47-81-111-14 |                | 47-81-131-14    | 47-81-151-14 | 47-81-171-10             | 47-81-191-14                |              |              |              |              |
|                    |               |               |                        |               |              |               | 5 (.19)         | 8.2 (.32)                                      | 47-82-111-14 |                | 47-82-131-14    | 47-82-151-14 | 47-82-171-10             | 47-82-191-14                |              |              |              |              |
| 1.6<br>(.063)      | 2.4<br>(.094) | 3.6<br>(.143) |                        |               |              | 4.2<br>(.164) | 3.4 (.13)       | 6.6 (.26)                                      | 47-80-112-14 |                | 47-80-132-14    | 47-80-152-14 | 47-80-172-10             | 47-80-192-14                |              |              |              |              |
|                    |               |               |                        |               |              |               | 5 (.19)         | 8.2 (.32)                                      | 47-81-112-14 |                | 47-81-132-14    | 47-81-152-14 | 47-81-172-10             | 47-81-192-14                |              |              |              |              |
|                    |               |               |                        |               |              |               | ~               | ~                                              | ~            |                | ~               | ~            | ~                        | ~                           |              |              |              |              |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64  
Change 3 to 7: 47-80-102-34  
47-80-102-74



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · M3.5 thread size

- Smooth knob meets UL-1950
- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer  
P.C. board: 300 Series stainless steel, passivated

Flare-in, floating and snap-in: Aluminum, natural

Knob: Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

### Installation Notes

See pages 468-469, 543

### Notes



To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

### Recess Styles

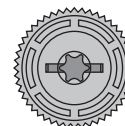
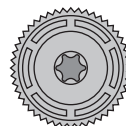
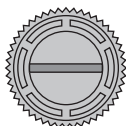
Slotted

No. 2 Phillips

T15 TORX®

T15 TORX® /  
Slot Combination

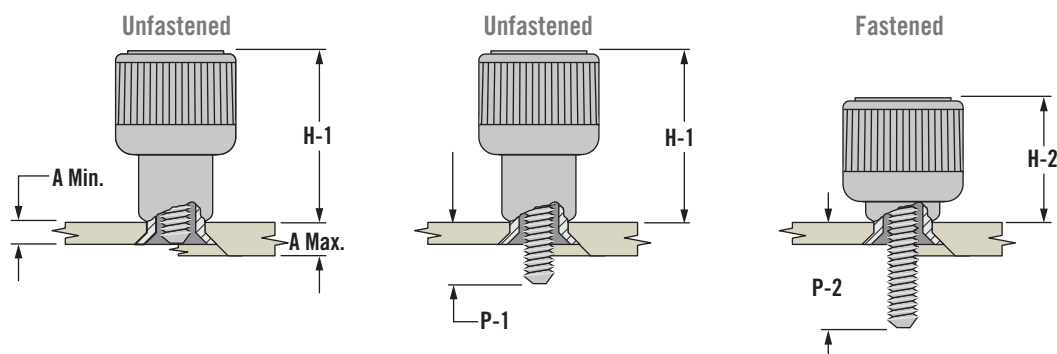
No. 2 Phillips /  
Slot Combination



ACTUAL  
SIZE

### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles

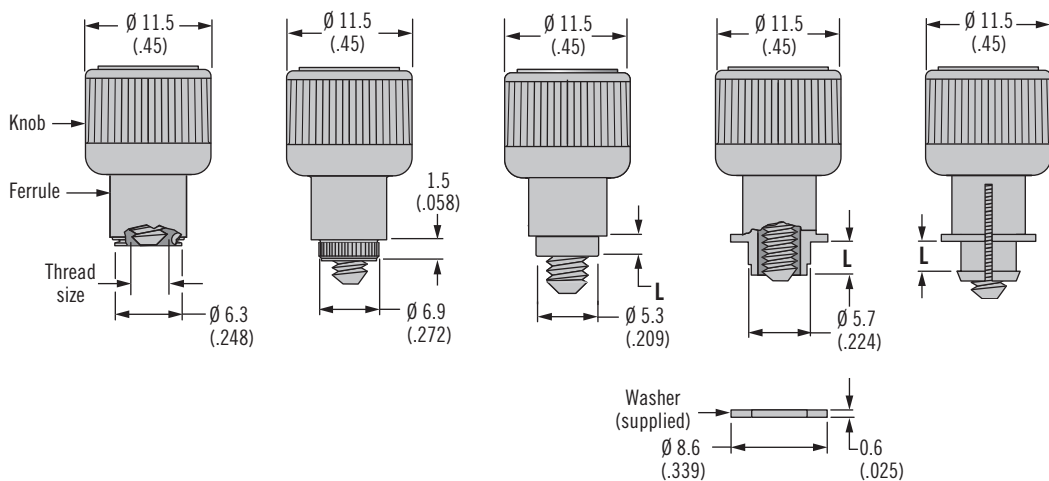
Press-In Style

P.C. Board Style

Flare-In Style

Floating Style

Snap-In Style



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Dimensions in millimeters (inch) unless otherwise stated

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| Installation Style | Knob Height |            | Outer Panel Dimensions |            | B          | Total Float | Flange Length L | Screw Projection Beyond Outer Surface of Panel |            | Part Number    |                 |              |                          |                             |
|--------------------|-------------|------------|------------------------|------------|------------|-------------|-----------------|------------------------------------------------|------------|----------------|-----------------|--------------|--------------------------|-----------------------------|
|                    | H-1         | H-2        | A Min.                 | A Max.     |            |             |                 | P-1                                            | P-2        | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |
| Press-In Style     | 15.9 (.63)  | 11.2 (.44) | 0.9 (.036)             | ~          | ~          | 0.8 (.03)   | ~               | 0.5 (.02)                                      | 5.3 (.21)  | 47-90-201-24   | 47-90-221-24    | 47-90-241-24 | 47-90-261-20             | 47-90-281-24                |
|                    |             |            |                        |            |            |             |                 | 2.1 (.09)                                      | 6.9 (.27)  | 47-91-201-24   | 47-91-221-24    | 47-91-241-24 | 47-91-261-20             | 47-91-281-24                |
|                    |             |            |                        |            |            |             |                 | 3.7 (.15)                                      | 8.5 (.33)  | 47-92-201-24   | 47-92-221-24    | 47-92-241-24 | 47-92-261-20             | 47-92-281-24                |
|                    |             |            |                        |            |            |             |                 | 5.3 (.21)                                      | 10.1 (.40) | 47-93-201-24   | 47-93-221-24    | 47-93-241-24 | 47-93-261-20             | 47-93-281-24                |
| P.C. Board Style   | 14.8 (.58)  | 10 (.39)   | 1.6 (.061)             | ~          | ~          | 0.8 (.03)   | ~               | 1.4 (.06)                                      | 6.2 (.24)  | 47-95-201-34   | 47-95-221-34    | 47-95-241-34 | 47-95-261-30             | 47-95-281-34                |
| Flare-In Style     | 15.3 (.60)  | 10.4 (.41) | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) | 0.8 (.03)   | 1.8 (.07)       | 1.1 (.04)                                      | 6 (.24)    | 47-80-202-14   | 47-80-222-14    | 47-80-242-14 | 47-80-262-10             | 47-80-282-14                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 2.7 (.11)                                      | 7.6 (.30)  | 47-80-204-14   | 47-80-224-14    | 47-80-244-14 | 47-80-264-10             | 47-80-284-14                |
|                    |             |            | 4.8 (.188)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 4.3 (.17)                                      | 9.2 (.36)  | 47-80-206-14   | 47-80-226-14    | 47-80-246-14 | 47-80-266-10             | 47-80-286-14                |
|                    |             |            | 6.4 (.252)             | 7.9 (.312) | 4.8 (.189) |             | 6.6 (.26)       | 5.9 (.23)                                      | 10.8 (.43) | 47-80-208-14   | 47-80-228-14    | 47-80-248-14 | 47-80-268-10             | 47-80-288-14                |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.07)       | 2.7 (.11)                                      | 7.6 (.30)  | 47-81-202-14   | 47-81-222-14    | 47-81-242-14 | 47-81-262-10             | 47-81-282-14                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.3 (.17)                                      | 9.2 (.36)  | 47-82-202-14   | 47-82-222-14    | 47-82-242-14 | 47-82-262-10             | 47-82-282-14                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 5.9 (.23)                                      | 10.8 (.43) | 47-83-202-14   | 47-83-222-14    | 47-83-242-14 | 47-83-262-10             | 47-83-282-14                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.3 (.17)                                      | 9.2 (.36)  | 47-81-204-14   | 47-81-224-14    | 47-81-244-14 | 47-81-264-10             | 47-81-284-14                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 5.9 (.23)                                      | 10.8 (.43) | 47-82-204-14   | 47-82-224-14    | 47-82-244-14 | 47-82-264-10             | 47-82-284-14                |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.07)       | 2.7 (.11)                                      | 7.6 (.30)  | 47-81-202-14   | 47-81-222-14    | 47-81-242-14 | 47-81-262-10             | 47-81-282-14                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.3 (.17)                                      | 9.2 (.36)  | 47-82-202-14   | 47-82-222-14    | 47-82-242-14 | 47-82-262-10             | 47-82-282-14                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 5.9 (.23)                                      | 10.8 (.43) | 47-83-202-14   | 47-83-222-14    | 47-83-242-14 | 47-83-262-10             | 47-83-282-14                |
| Floating Style     | 15.4 (.60)  | 10.6 (.42) | ~                      | 0.8 (.031) | 2.1 (.083) | 2.2 (.09)   | 2.9 (.113)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-210-14   | 47-80-230-14    | 47-80-250-14 | 47-80-270-10             | 47-80-290-14                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 2.9 (.114) |             | 3.7 (.144)      | 4 (.16)                                        | 8.8 (.35)  | 47-81-210-14   | 47-81-230-14    | 47-81-250-14 | 47-81-270-10             | 47-81-290-14                |
|                    |             |            | 1.6 (.063)             | 2.4 (.094) | 3.7 (.146) |             | 4.5 (.176)      | 5.6 (.22)                                      | 10.4 (.41) | 47-82-210-14   | 47-82-230-14    | 47-82-250-14 | 47-82-270-10             | 47-82-290-14                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 2.9 (.114) |             | 3.7 (.144)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-211-14   | 47-80-231-14    | 47-80-251-14 | 47-80-271-10             | 47-80-291-14                |
|                    |             |            | 1.6 (.063)             | 2.4 (.094) | 3.7 (.146) |             | 4.5 (.176)      | 4 (.16)                                        | 8.8 (.35)  | 47-81-211-14   | 47-81-231-14    | 47-81-251-14 | 47-81-271-10             | 47-81-291-14                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 2.9 (.114) |             | 3.7 (.144)      | 5.6 (.22)                                      | 10.4 (.41) | 47-82-211-14   | 47-82-231-14    | 47-82-251-14 | 47-82-271-10             | 47-82-291-14                |
|                    |             |            | 1.6 (.063)             | 2.4 (.094) | 3.7 (.146) |             | 4.5 (.176)      | 4 (.16)                                        | 8.8 (.35)  | 47-80-212-14   | 47-80-232-14    | 47-80-252-14 | 47-80-272-10             | 47-80-292-14                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 2.9 (.114) |             | 3.7 (.144)      | 5.6 (.22)                                      | 10.4 (.41) | 47-81-212-14   | 47-81-232-14    | 47-81-252-14 | 47-81-272-10             | 47-81-292-14                |
| Snap-In Style      | 15.4 (.60)  | 10.6 (.42) | 0.5 (.02)              | 1 (.039)   | 2 (.079)   | 0.8 (.03)   | 1.1 (.044)      | 0.8 (.03)                                      | 5.6 (.22)  | 47-90-210-14   | 47-90-230-14    | 47-90-250-14 | 47-90-270-10             | 47-90-290-14                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.067)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-91-210-14   | 47-91-230-14    | 47-91-250-14 | 47-91-270-10             | 47-91-290-14                |
|                    |             |            | 0.5 (.02)              | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 4 (.16)                                        | 8.8 (.35)  | 47-92-210-14   | 47-92-230-14    | 47-92-250-14 | 47-92-270-10             | 47-92-290-14                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.067)      | 5.6 (.22)                                      | 10.4 (.41) | 47-93-210-14   | 47-93-230-14    | 47-93-250-14 | 47-93-270-10             | 47-93-290-14                |
|                    |             |            | 0.5 (.02)              | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-90-212-14   | 47-90-232-14    | 47-90-252-14 | 47-90-272-10             | 47-90-292-14                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.067)      | 4 (.16)                                        | 8.8 (.35)  | 47-91-212-14   | 47-91-232-14    | 47-91-252-14 | 47-91-272-10             | 47-91-292-14                |
|                    |             |            | 0.5 (.02)              | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 5.6 (.22)                                      | 10.4 (.41) | 47-92-212-14   | 47-92-232-14    | 47-92-252-14 | 47-92-272-10             | 47-92-292-14                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.067)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-90-212-14   | 47-90-232-14    | 47-90-252-14 | 47-90-272-10             | 47-90-292-14                |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64  
Change 3 to 7: 47-80-102-34  
47-80-102-74



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · M4 thread size

- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel,  
zinc plate, chromate, plus sealer

Flare-in, floating and snap-in:

Aluminum, natural

Knob: Aluminum, natural or black  
powder coated

Screw: Hardened carbon steel,  
zinc plated, chromate, plus sealer

### Installation Notes

See pages 468-469, 543

### Notes



To ensure you receive  
**SOUTHCO®** quality parts,  
look for the segmented circle

### Recess Styles

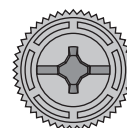
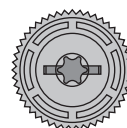
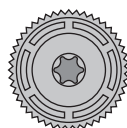
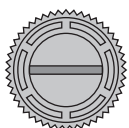
Slotted

No. 2 Phillips

T25 TORX®

T25 TORX® /  
Slot Combination

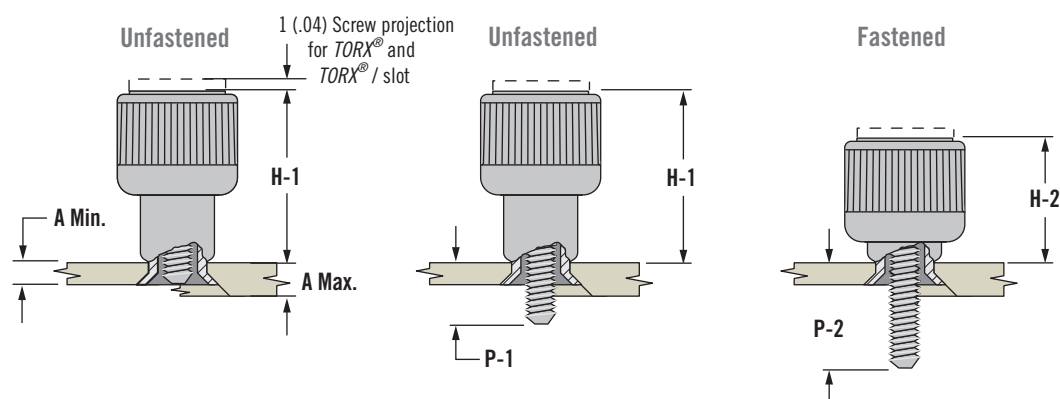
No. 2 Phillips /  
Slot Combination



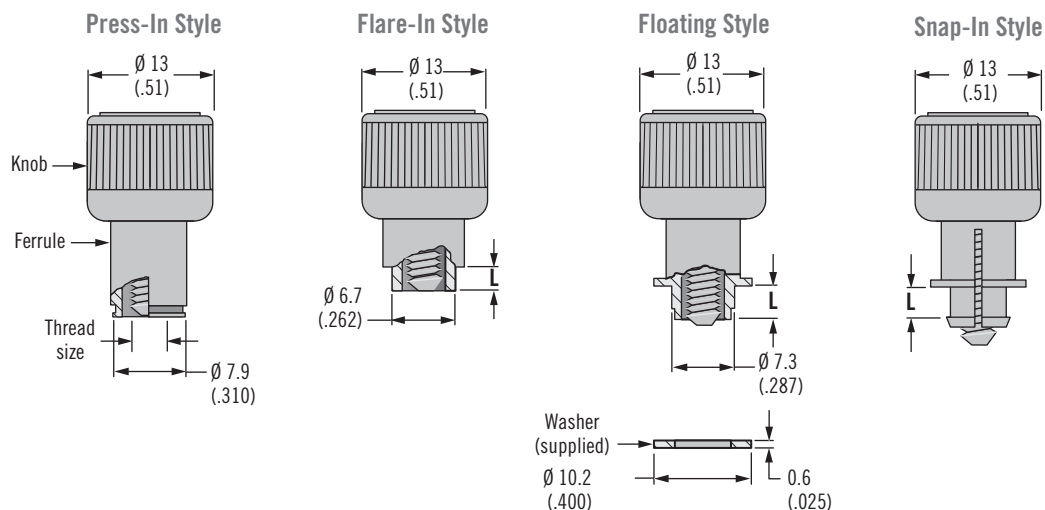
ACTUAL  
SIZE

### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated

| Installation Style | Knob Height |            | Outer Panel Dimensions |            | B          | Total Float | Flange Length L | Screw Projection Beyond Outer Surface of Panel |            | Part Number    |                 |              |                          |                             |
|--------------------|-------------|------------|------------------------|------------|------------|-------------|-----------------|------------------------------------------------|------------|----------------|-----------------|--------------|--------------------------|-----------------------------|
|                    | H-1         | H-2        | A Min.                 | A Max.     |            |             |                 | P-1                                            | P-2        | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |
| Press-In Style     | 16.2 (.64)  | 11.3 (.45) | 0.9 (.036)             | ~          | ~          | 0.8 (.03)   | ~               | 0.6 (.02)                                      | 5.6 (.22)  | 47-90-301-24   | 47-90-321-24    | 47-90-341-20 | 47-90-361-20             | 47-90-381-20                |
|                    |             |            |                        |            |            |             |                 | 2.2 (.09)                                      | 7.2 (.28)  | 47-91-301-24   | 47-91-321-24    | 47-91-341-20 | 47-91-361-20             | 47-91-381-20                |
|                    |             |            |                        |            |            |             |                 | 3.8 (.15)                                      | 8.7 (.34)  | 47-92-301-24   | 47-92-321-24    | 47-92-341-20 | 47-92-361-20             | 47-92-381-20                |
|                    |             |            |                        |            |            |             |                 | 5.4 (.21)                                      | 10.3 (.41) | 47-93-301-24   | 47-93-321-24    | 47-93-341-20 | 47-93-361-20             | 47-93-381-20                |
| Flare-In Style     | 15.6 (.61)  | 10.5 (.41) | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) | 0.9 (.03)   | 1.8 (.070)      | 1.2 (.05)                                      | 6.3 (.25)  | 47-80-302-14   | 47-80-322-14    | 47-80-342-10 | 47-80-362-10             | 47-80-382-10                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 2.8 (.11)                                      | 7.9 (.31)  | 47-80-304-14   | 47-80-324-14    | 47-80-344-10 | 47-80-364-10             | 47-80-384-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.251) | 3.2 (.125) |             | 5 (.197)        | 4.4 (.17)                                      | 9.5 (.37)  | 47-80-306-14   | 47-80-326-14    | 47-80-346-10 | 47-80-366-10             | 47-80-386-10                |
|                    |             |            | 6.4 (.251)             | 7.9 (.312) | 4.8 (.187) |             | 6.6 (.26)       | 6 (.24)                                        | 11.1 (.44) | 47-80-308-14   | 47-80-328-14    | 47-80-348-10 | 47-80-368-10             | 47-80-388-10                |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.07)       | 2.8 (.11)                                      | 7.9 (.31)  | 47-81-302-14   | 47-81-322-14    | 47-81-342-10 | 47-81-362-10             | 47-81-382-10                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-82-302-14   | 47-82-322-14    | 47-82-342-10 | 47-82-362-10             | 47-82-382-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 6 (.24)         | 6 (.24)                                        | 11.1 (.44) | 47-83-302-14   | 47-83-322-14    | 47-83-342-10 | 47-83-362-10             | 47-83-382-10                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-81-304-14   | 47-81-324-14    | 47-81-344-10 | 47-81-364-10             | 47-81-384-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 6 (.24)         | 6 (.24)                                        | 11.1 (.44) | 47-82-304-14   | 47-82-324-14    | 47-82-344-10 | 47-82-364-10             | 47-82-384-10                |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.07)       | 2.8 (.11)                                      | 7.9 (.31)  | 47-81-306-14   | 47-81-326-14    | 47-81-346-10 | 47-81-366-10             | 47-81-386-10                |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-82-306-14   | 47-82-326-14    | 47-82-346-10 | 47-82-366-10             | 47-82-386-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 6 (.24)         | 6 (.24)                                        | 11.1 (.44) | 47-83-306-14   | 47-83-326-14    | 47-83-346-10 | 47-83-366-10             | 47-83-386-10                |
| Floating Style     | 16.2 (.64)  | 11.2 (.44) | ~                      | 0.8 (.031) | 2.3 (.09)  | 2.3 (.09)   | 3.2 (.127)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-310-14   | 47-80-330-14    | 47-80-350-10 | 47-80-370-10             | 47-80-390-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 4 (16)                                         | 8.8 (.35)  | 47-81-310-14   | 47-81-330-14    | 47-81-350-10 | 47-81-370-10             | 47-81-390-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 5.6 (.22)                                      | 10.4 (.41) | 47-82-310-14   | 47-82-330-14    | 47-82-350-10 | 47-82-370-10             | 47-82-390-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-311-14   | 47-80-331-14    | 47-80-351-10 | 47-80-371-10             | 47-80-391-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 4 (16)                                         | 8.8 (.35)  | 47-81-311-14   | 47-81-331-14    | 47-81-351-10 | 47-81-371-10             | 47-81-391-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 5.6 (.22)                                      | 10.4 (.41) | 47-82-311-14   | 47-82-331-14    | 47-82-351-10 | 47-82-371-10             | 47-82-391-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-312-14   | 47-80-332-14    | 47-80-352-10 | 47-80-372-10             | 47-80-392-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.09)  |             | 4 (158)         | 4 (16)                                         | 8.8 (.35)  | 47-81-312-14   | 47-81-332-14    | 47-81-352-10 | 47-81-372-10             | 47-81-392-10                |
| Snap-In Style      | 15.7 (.62)  | 11.2 (.44) | 0.5 (.02)              | 1 (.039)   | 2 (.079)   | 0.9 (.03)   | 1.1 (.044)      | 1.1 (.04)                                      | 5.6 (.22)  | 47-90-310-14   | 47-90-330-14    | 47-90-350-10 | 47-90-370-10             | 47-90-390-10                |
|                    |             |            | 0.5 (.02)              | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 2.7 (.11)                                      | 7.2 (.28)  | 47-91-310-14   | 47-91-330-14    | 47-91-350-10 | 47-91-370-10             | 47-91-390-10                |
|                    |             |            | 0.5 (.02)              | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-93-310-14   | 47-92-330-14    | 47-92-350-10 | 47-92-370-10             | 47-92-390-10                |
|                    |             |            | 0.5 (.02)              | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 5.8 (.23)                                      | 10.4 (.41) | 47-93-310-14   | 47-93-330-14    | 47-93-350-10 | 47-93-370-10             | 47-93-390-10                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.102) |             | 1.7 (.068)      | 2.7 (.11)                                      | 7.2 (.28)  | 47-90-312-14   | 47-90-332-14    | 47-90-352-10 | 47-90-372-10             | 47-90-392-10                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.102) |             | 1.7 (.068)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-91-312-14   | 47-91-332-14    | 47-91-352-10 | 47-91-372-10             | 47-91-392-10                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.102) |             | 1.7 (.068)      | 5.9 (.23)                                      | 10.4 (.41) | 47-92-312-14   | 47-92-332-14    | 47-92-352-10 | 47-92-372-10             | 47-92-392-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 2.7 (.11)                                      | 7.2 (.28)  | 47-90-314-14   | 47-90-334-14    | 47-90-354-10 | 47-90-374-10             | 47-90-394-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-91-314-14   | 47-91-334-14    | 47-91-354-10 | 47-91-374-10             | 47-91-394-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 5.9 (.23)                                      | 10.4 (.41) | 47-92-314-14   | 47-92-334-14    | 47-92-354-10 | 47-92-374-10             | 47-92-394-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 2.7 (.11)                                      | 7.2 (.28)  | 47-90-310-14   | 47-90-330-14    | 47-90-350-10 | 47-90-370-10             | 47-90-390-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-91-310-14   | 47-91-330-14    | 47-91-350-10 | 47-91-370-10             | 47-91-390-10                |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · M5 thread size

- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel,  
zinc plate, chromate, plus sealer

Flare-in, floating and snap-in:

Aluminum, natural

Knob: Aluminum, natural or black  
powder coated

Screw: Hardened carbon steel,  
zinc plated, chromate, plus sealer

### Installation Notes

See pages 468-469, 543

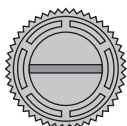
### Notes



To ensure you receive  
**SOUTHCO®** quality parts,  
look for the segmented circle

### Recess Styles

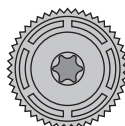
Slotted



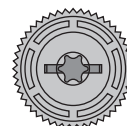
No. 2 Phillips



T25 TORX®



T25 TORX® /  
Slot Combination



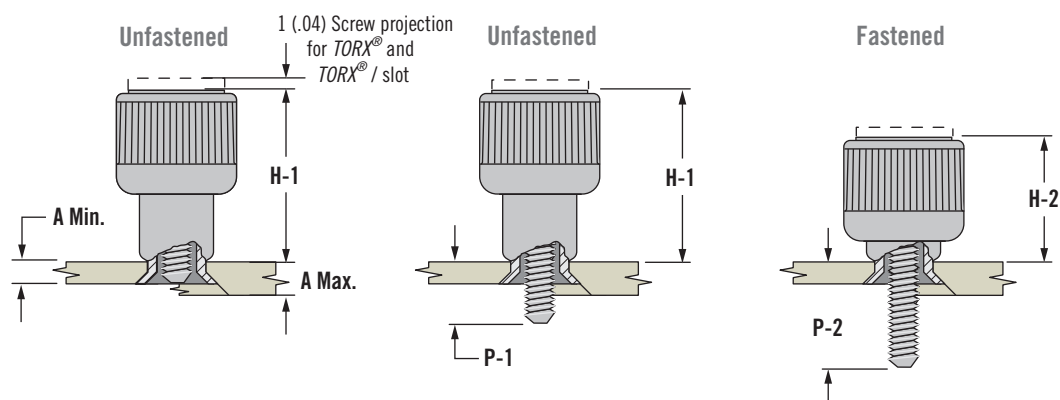
No. 2 Phillips /  
Slot Combination



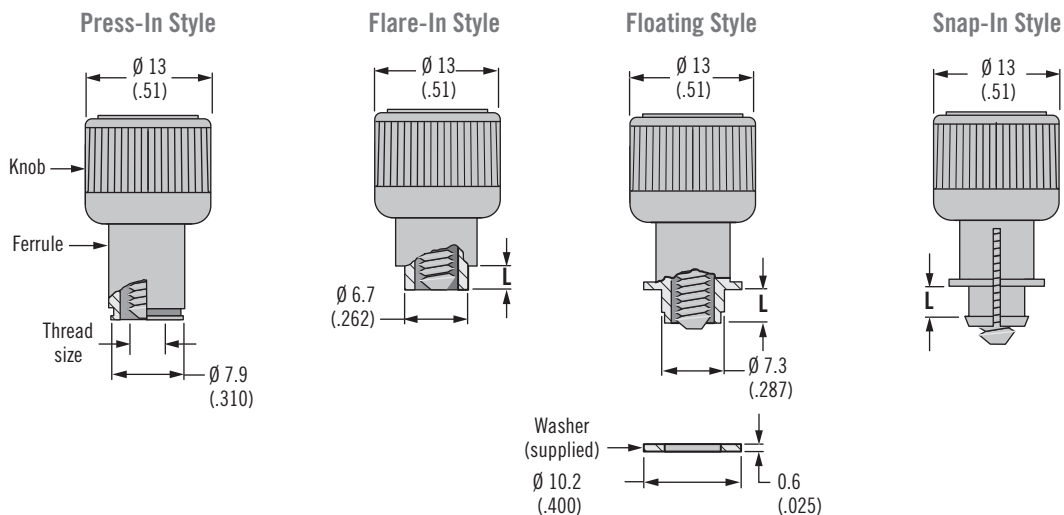
ACTUAL  
SIZE

### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



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Dimensions in millimeters (inch) unless otherwise stated



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**southco®**  
CONNECT · CREATE · INNOVATE

| Installation Style | Knob Height |            | Outer Panel Dimensions |            |            | Total Float | Flange Length L | Screw Projection Beyond Outer Surface of Panel |            | Part Number    |                 |              |                          |                             |  |  |
|--------------------|-------------|------------|------------------------|------------|------------|-------------|-----------------|------------------------------------------------|------------|----------------|-----------------|--------------|--------------------------|-----------------------------|--|--|
|                    | H-1         | H-2        | A Min.                 | A Max.     | B          |             |                 | P-1                                            | P-2        | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |  |  |
| Press-In Style     | 16.2 (.64)  | 11.3 (.45) | 0.9 (.036)             | ~          | ~          | 0.6 (.02)   | ~               | 0.6 (.024)                                     | 5.5 (.22)  | 47-90-501-24   | 47-90-521-24    | 47-90-541-20 | 47-90-561-20             | 47-90-581-20                |  |  |
|                    |             |            |                        |            |            |             |                 | 2.2 (.087)                                     | 7.1 (.28)  | 47-91-501-24   | 47-91-521-24    | 47-91-541-20 | 47-91-561-20             | 47-91-581-20                |  |  |
|                    |             |            |                        |            |            |             |                 | 3.8 (.15)                                      | 8.7 (.34)  | 47-92-501-24   | 47-92-521-24    | 47-92-541-20 | 47-92-561-20             | 47-92-581-20                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.4 (.21)                                      | 10.3 (.41) | 47-93-501-24   | 47-93-521-24    | 47-93-541-20 | 47-93-561-20             | 47-93-581-20                |  |  |
| Flare-In Style     | 15.6 (.61)  | 10.5 (.41) | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) | 0.6 (.02)   | 1.8 (.070)      | 1.2 (.05)                                      | 6.3 (.25)  | 47-80-502-14   | 47-80-522-14    | 47-80-542-10 | 47-80-562-10             | 47-80-582-10                |  |  |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 2.8 (.11)                                      | 7.9 (.31)  | 47-80-504-14   | 47-80-524-14    | 47-80-544-10 | 47-80-564-10             | 47-80-584-10                |  |  |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 4.4 (.17)                                      | 9.5 (.37)  | 47-80-506-14   | 47-80-526-14    | 47-80-546-10 | 47-80-566-10             | 47-80-586-10                |  |  |
|                    |             |            | 6.3 (.251)             | 7.9 (.312) | 4.8 (.189) |             | 6.6 (.260)      | 6 (.24)                                        | 11.1 (.44) | 47-80-508-14   | 47-80-528-14    | 47-80-548-10 | 47-80-568-10             | 47-80-588-10                |  |  |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.070)      | 2.8 (.11)                                      | 7.9 (.31)  | 47-81-502-14   | 47-81-522-14    | 47-81-542-10 | 47-81-562-10             | 47-81-582-10                |  |  |
|                    |             |            | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-82-502-14   | 47-82-522-14    | 47-82-542-10 | 47-82-562-10             | 47-82-582-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 6 (.24)                                        | 11.1 (.44) | 47-83-502-14   | 47-83-522-14    | 47-83-542-10 | 47-83-562-10             | 47-83-582-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 4.4 (.17)                                      | 9.5 (.37)  | 47-81-504-14   | 47-81-524-14    | 47-81-544-10 | 47-81-564-10             | 47-81-584-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 6 (.24)                                        | 11.1 (.44) | 47-82-504-14   | 47-82-524-14    | 47-82-544-10 | 47-82-564-10             | 47-82-584-10                |  |  |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 6 (.24)                                        | 11.1 (.44) | 47-81-506-14   | 47-81-526-14    | 47-81-546-10 | 47-81-566-10             | 47-81-586-10                |  |  |
| Floating Style     | 16 (.63)    | 11.2 (.44) | ~                      | 0.8 (.031) | 2.3 (.090) | 2.3 (.09)   | 3.2 (.127)      | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-510-14   | 47-80-530-14    | 47-80-550-10 | 47-80-570-10             | 47-80-590-10                |  |  |
|                    |             |            |                        |            |            |             | 4 (.158)        | 4 (.16)                                        | 8.8 (.35)  | 47-81-510-14   | 47-81-530-14    | 47-81-550-10 | 47-81-570-10             | 47-81-590-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.6 (.22)                                      | 10.4 (.41) | 47-82-510-14   | 47-82-530-14    | 47-82-550-10 | 47-82-570-10             | 47-82-590-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-511-14   | 47-80-531-14    | 47-80-551-10 | 47-80-571-10             | 47-80-591-10                |  |  |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 3.1 (.121) |             | 4 (.158)        | 4 (.16)                                        | 8.8 (.35)  | 47-81-511-14   | 47-81-531-14    | 47-81-551-10 | 47-81-571-10             | 47-81-591-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.6 (.22)                                      | 10.4 (.41) | 47-82-511-14   | 47-82-531-14    | 47-82-551-10 | 47-82-571-10             | 47-82-591-10                |  |  |
|                    |             |            |                        |            |            |             | 4.8 (.190)      | 4 (.16)                                        | 8.8 (.35)  | 47-80-512-14   | 47-80-532-14    | 47-80-552-10 | 47-80-572-10             | 47-80-592-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.6 (.22)                                      | 10.4 (.41) | 47-81-512-14   | 47-81-532-14    | 47-81-552-10 | 47-81-572-10             | 47-81-592-10                |  |  |
| Snap-In Style      | 15.7 (.62)  | 11.2 (.44) | 0.5 (.020)             | 1 (.039)   | 2 (.079)   | .9 (.04)    | 1.1 (.044)      | 1.1 (.04)                                      | 5.6 (.22)  | 47-90-510-14   | 47-90-530-14    | 47-90-550-10 | 47-90-570-10             | 47-90-590-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 2.7 (.11)                                      | 7.2 (.28)  | 47-91-510-14   | 47-91-530-14    | 47-91-550-10 | 47-91-570-10             | 47-91-590-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 4.3 (.17)                                      | 8.8 (.35)  | 47-92-510-14   | 47-92-530-14    | 47-92-550-10 | 47-92-570-10             | 47-92-590-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.9 (.23)                                      | 10.4 (.41) | 47-93-510-14   | 47-93-530-14    | 47-93-550-10 | 47-93-570-10             | 47-93-590-10                |  |  |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.068)      | 2.7 (.11)                                      | 7.2 (.28)  | 47-90-512-14   | 47-90-532-14    | 47-90-552-10 | 47-90-572-10             | 47-90-592-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 4.3 (.17)                                      | 8.8 (.35)  | 47-91-512-14   | 47-91-532-14    | 47-91-552-10 | 47-91-572-10             | 47-91-592-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.9 (.23)                                      | 10.4 (.41) | 47-92-512-14   | 47-92-532-14    | 47-92-552-10 | 47-92-572-10             | 47-92-592-10                |  |  |
|                    |             |            |                        |            |            |             | 2.6 (.103)      | 2.7 (.11)                                      | 7.2 (.28)  | 47-90-514-14   | 47-90-534-14    | 47-90-554-10 | 47-90-574-10             | 47-90-594-10                |  |  |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             |                 | 4.3 (.17)                                      | 8.8 (.35)  | 47-91-514-14   | 47-91-534-14    | 47-91-554-10 | 47-91-574-10             | 47-91-594-10                |  |  |
|                    |             |            |                        |            |            |             |                 | 5.9 (.23)                                      | 10.4 (.41) | 47-92-514-14   | 47-92-534-14    | 47-92-554-10 | 47-92-574-10             | 47-92-594-10                |  |  |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · M6 thread size

- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer

Flare-in and Floating:

Aluminum, natural

Knob: Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

### Installation Notes

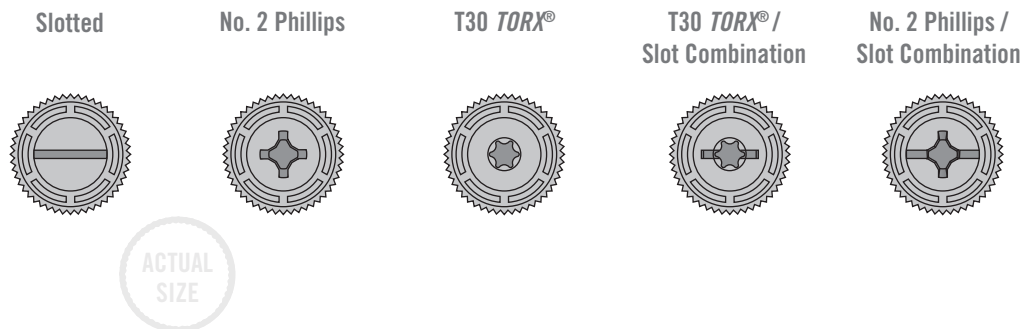
See pages 468-469, 543

### Notes



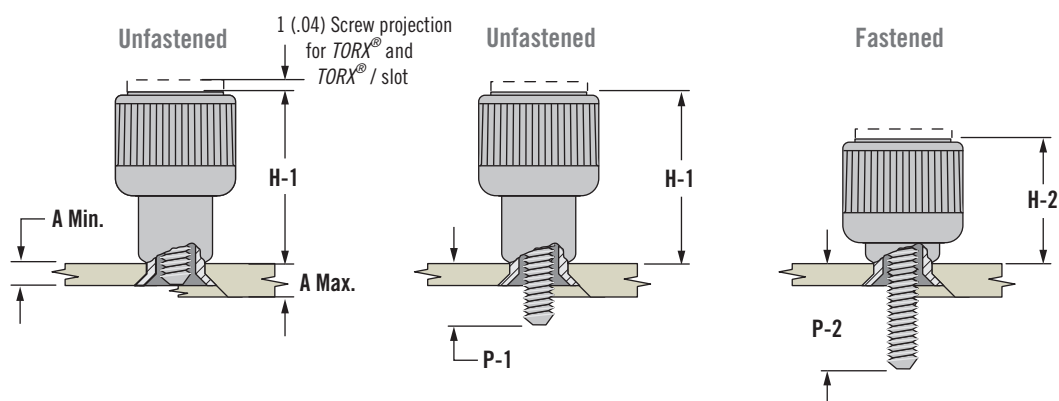
To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

### Recess Styles

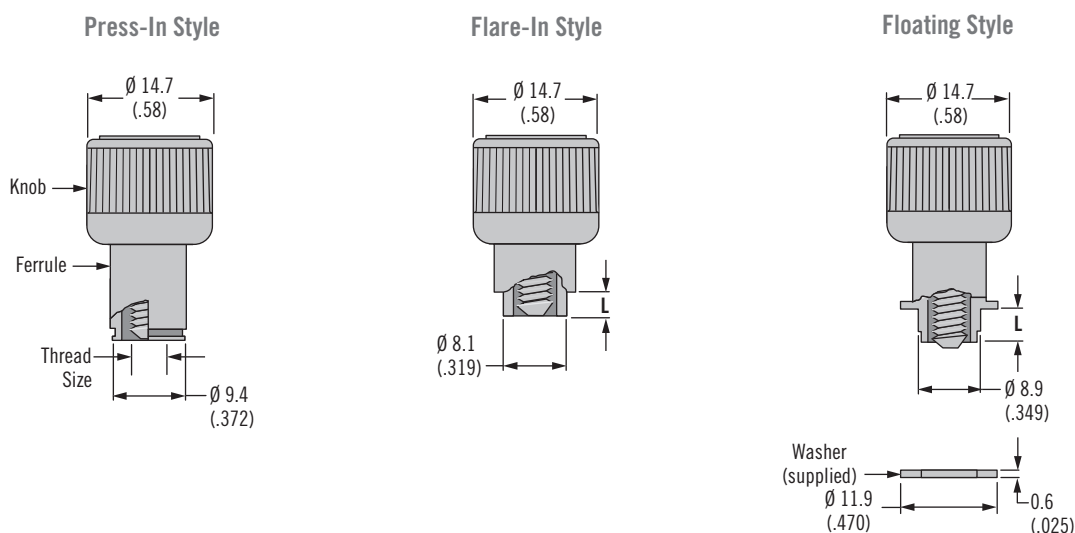


### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



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Dimensions in millimeters (inch) unless otherwise stated



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| Installation Style | Knob Height   |               | Outer Panel Dimensions |               | B             | Total Float  | Flange Length L | Screw Projection Beyond Outer Surface of Panel |              | Part Number    |                 |              |                          |                             |              |  |  |
|--------------------|---------------|---------------|------------------------|---------------|---------------|--------------|-----------------|------------------------------------------------|--------------|----------------|-----------------|--------------|--------------------------|-----------------------------|--------------|--|--|
|                    | H-1           | H-2           | A Min.                 | A Max.        |               |              |                 | P-1                                            | P-2          | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |              |  |  |
| Press-In Style     | 20<br>(.79)   | 13.4<br>(.53) | 0.9<br>(.036)          | ~             | ~             | 0.8<br>(.03) | ~               | 0.5 (.02)                                      | 7.1 (.28)    | 47-90-601-24   | 47-90-621-24    | 47-90-641-20 | 47-90-661-20             | 47-90-681-20                |              |  |  |
|                    |               |               |                        |               |               |              |                 | 2.1 (.08)                                      | 8.7 (.34)    | 47-91-601-24   | 47-91-621-24    | 47-91-641-20 | 47-91-661-20             | 47-91-681-20                |              |  |  |
|                    |               |               |                        |               |               |              |                 | 3.7 (.15)                                      | 10.3 (.41)   | 47-92-601-24   | 47-92-621-24    | 47-92-641-20 | 47-92-661-20             | 47-92-681-20                |              |  |  |
|                    |               |               |                        |               |               |              |                 | 5.3 (.21)                                      | 11.9 (.47)   | 47-93-601-24   | 47-93-621-24    | 47-93-641-20 | 47-93-661-20             | 47-93-681-20                |              |  |  |
| Flare-In Style     | 19.3<br>(.76) | 12.7<br>(.50) | 1.5<br>(.058)          | 3.2<br>(.125) | 0.4<br>(.015) | 0.9<br>(.03) | 1.8 (.070)      | 1.2 (.05)                                      | 7.8 (.31)    | 47-80-602-14   | 47-80-622-14    | 47-80-642-10 | 47-80-662-10             | 47-80-682-10                |              |  |  |
|                    |               |               | 3.2<br>(.126)          | 4.8<br>(.189) | 1.6<br>(.062) |              | 3.4 (.135)      | 2.8 (.11)                                      | 9.4 (.31)    | 47-80-604-14   | 47-80-624-14    | 47-80-644-10 | 47-80-664-10             | 47-80-684-10                |              |  |  |
|                    |               |               | 4.8<br>(.189)          | 6.4<br>(.250) | 3.2<br>(.125) |              | 5 (.197)        | 4.4 (.17)                                      | 11 (.43)     | 47-80-606-14   | 47-80-626-14    | 47-80-646-10 | 47-80-666-10             | 47-80-686-10                |              |  |  |
|                    |               |               | 6.4<br>(.251)          | 7.9<br>(.312) | 4.8<br>(.189) |              | 6.6 (.260)      | 6 (.24)                                        | 12.6 (.50)   | 47-80-608-14   | 47-80-628-14    | 47-80-648-10 | 47-80-668-10             | 47-80-688-10                |              |  |  |
|                    |               |               | 1.5<br>(.058)          | 3.2<br>(.125) | 0.4<br>(.015) |              | 1.8 (.070)      | 2.8 (.11)                                      | 9.4 (.37)    | 47-81-602-14   | 47-81-622-14    | 47-81-642-10 | 47-81-662-10             | 47-81-682-10                |              |  |  |
|                    |               |               | 4.4 (.17)              | 11 (.43)      | 47-82-602-14  |              |                 | 47-82-622-14                                   | 47-82-642-10 | 47-82-662-10   | 47-82-682-10    |              |                          |                             |              |  |  |
|                    |               |               | 6 (.24)                | 12.6 (.50)    | 47-83-602-14  |              | 47-83-622-14    | 47-83-642-10                                   | 47-83-662-10 | 47-83-682-10   |                 |              |                          |                             |              |  |  |
|                    |               |               | 3.2<br>(.126)          | 4.8<br>(.189) | 1.6<br>(.062) |              | 3.4 (.135)      | 4.4 (.17)                                      | 11 (.43)     | 47-81-604-14   | 47-81-624-14    | 47-81-644-10 | 47-81-664-10             | 47-81-684-10                |              |  |  |
|                    |               |               | 6 (.24)                | 12.6 (.50)    | 47-82-604-14  |              |                 | 47-82-624-14                                   | 47-82-644-10 | 47-82-664-10   | 47-82-684-10    |              |                          |                             |              |  |  |
|                    |               |               | 4.8<br>(.189)          | 6.4<br>(.250) | 3.2<br>(.125) |              | 5 (.197)        | 6 (.24)                                        | 12.6 (.50)   | 47-81-606-14   | 47-81-626-14    | 47-81-646-10 | 47-81-666-10             | 47-81-686-10                |              |  |  |
| Floating Style     | 20<br>(.79)   | 13.3<br>(.52) | ~                      | 0.8<br>(.031) | 2.5<br>(.097) | 2.3<br>(.09) | 3.2 (.127)      | 2.1 (.08)                                      | 8.8 (.35)    | 47-80-610-14   | 47-80-630-14    | 47-80-650-10 | 47-80-670-10             | 47-80-690-10                |              |  |  |
|                    |               |               |                        | 0.8<br>(.031) | 1.6<br>(.063) |              |                 | 3.7 (.15)                                      | 10.4 (.41)   | 47-81-610-14   | 47-81-630-14    | 47-81-650-10 | 47-81-670-10             | 47-81-690-10                |              |  |  |
|                    |               |               |                        |               |               |              |                 | 5.3 (.21)                                      | 12 (.47)     | 47-82-610-14   | 47-82-630-14    | 47-82-650-10 | 47-82-670-10             | 47-82-690-10                |              |  |  |
|                    |               |               | 0.8<br>(.031)          | 1.6<br>(.063) |               |              | 3.3<br>(.128)   | 4 (.158)                                       | 2.1 (.08)    | 8.8 (.35)      | 47-80-611-14    | 47-80-631-14 | 47-80-651-10             | 47-80-671-10                | 47-80-691-10 |  |  |
|                    |               |               |                        |               |               |              |                 |                                                | 3.7 (.15)    | 10.4 (.41)     | 47-81-611-14    | 47-81-631-14 | 47-81-651-10             | 47-81-671-10                | 47-81-691-10 |  |  |
|                    |               |               |                        |               |               |              |                 |                                                | 5.3 (.21)    | 12 (.47)       | 47-82-611-14    | 47-82-631-14 | 47-82-651-10             | 47-82-671-10                | 47-82-691-10 |  |  |
|                    |               |               | 1.6<br>(.063)          | 2.4<br>(.094) | 4.1<br>(.160) |              |                 | 4.8 (.189)                                     | 3.7 (.15)    | 10.4 (.41)     | 47-80-612-14    | 47-80-632-14 | 47-80-652-10             | 47-80-672-10                | 47-80-692-10 |  |  |
|                    |               |               |                        |               |               |              |                 |                                                | 5.3 (.21)    | 12 (.47)       | 47-81-612-14    | 47-81-632-14 | 47-81-652-10             | 47-81-672-10                | 47-81-692-10 |  |  |
|                    |               |               |                        |               |               |              |                 |                                                |              |                |                 |              |                          |                             |              |  |  |
|                    |               |               |                        |               |               |              |                 |                                                |              |                |                 |              |                          |                             |              |  |  |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14

47-80-102-54

Change 2 to 6: 47-80-102-24

47-80-102-64



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20

47-90-161-21

Change 4 to 5: 47-90-101-24

47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



# 47 Captive Screws

Styled knob series · 4-40 thread size

- Smooth knob meets UL-1950
- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

## Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer

P.C. board style:

300 Series stainless steel

Flare-in and Floating:

Aluminum, natural

Knob: Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

## Installation Notes

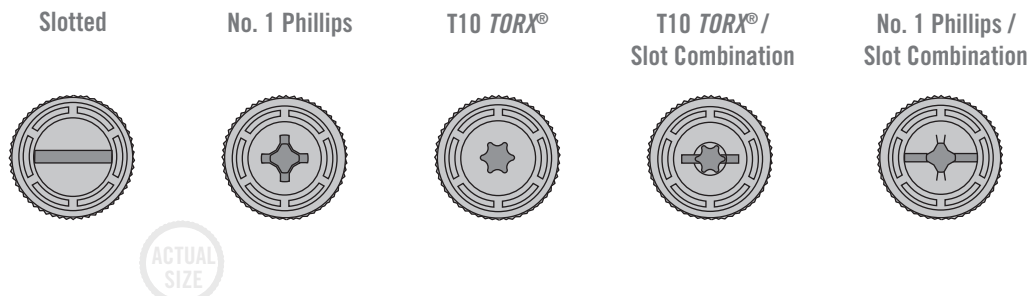
See pages 468-469, 543

## Notes



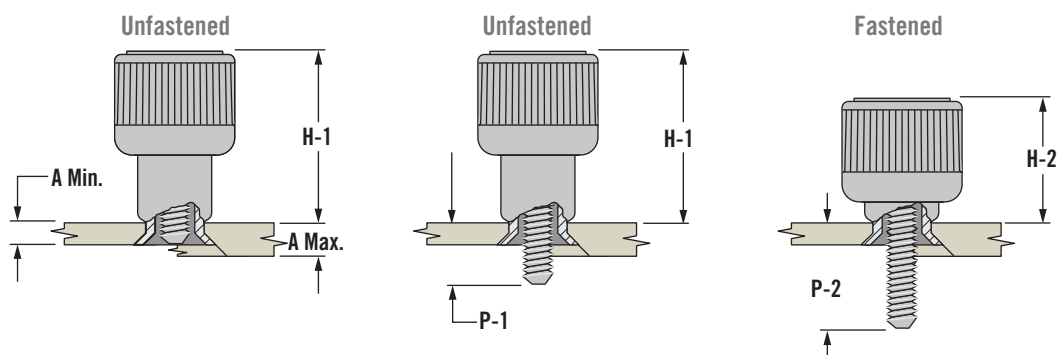
To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

## Recess Styles

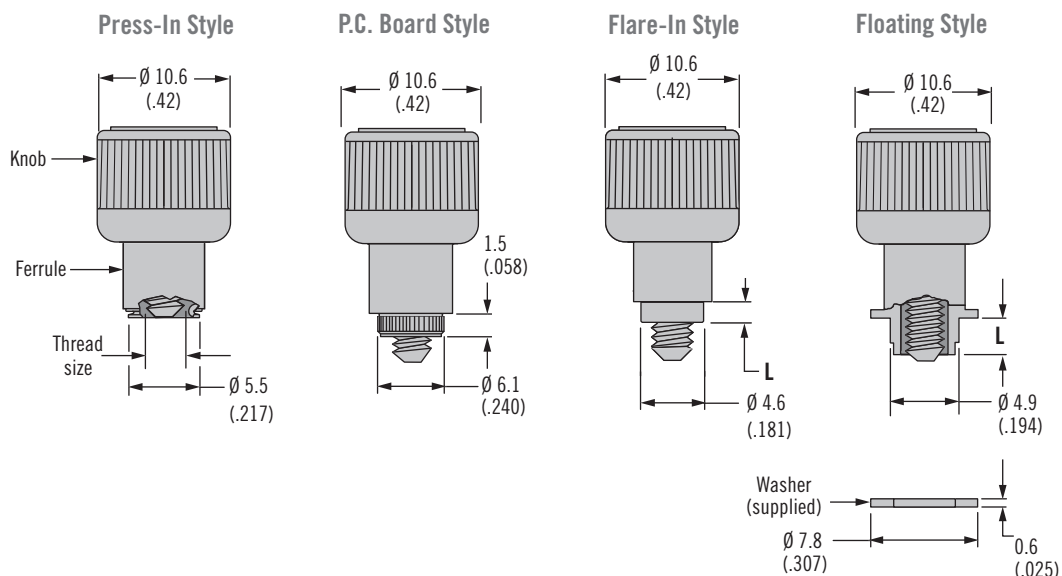


## Knob Height and Screw Projection

(Flare-in style shown)



## Installation Styles



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Dimensions in millimeters (inch) unless otherwise stated

| Installation Style | Knob Height   |               | Outer Panel Dimensions |               | B             | Total Float  | Flange Length L | Screw Projection Beyond Outer Surface of Panel |              | Part Number    |                 |              |                          |                             |
|--------------------|---------------|---------------|------------------------|---------------|---------------|--------------|-----------------|------------------------------------------------|--------------|----------------|-----------------|--------------|--------------------------|-----------------------------|
|                    | H-1           | H-2           | A Min.                 | A Max.        |               |              |                 | P-1                                            | P-2          | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |
| Press-In Style     | 11.3<br>(.45) | 8.3<br>(.33)  | 0.9<br>(.036)          | ~             | ~             | 0.8<br>(.03) | ~               | 0.8<br>(.03)                                   | 3.8 (.15)    | 47-60-101-24   | 47-60-121-24    | 47-60-141-24 | 47-60-161-20             | 47-60-181-24                |
|                    |               |               |                        |               |               |              |                 | 2.5 (.10)                                      | 5.5 (.22)    | 47-61-101-24   | 47-61-121-24    | 47-61-141-24 | 47-61-161-20             | 47-61-181-24                |
|                    |               |               |                        |               |               |              |                 | 4 (.16)                                        | 7 (.28)      | 47-62-101-24   | 47-62-121-24    | 47-62-141-24 | 47-62-161-20             | 47-62-181-24                |
|                    |               |               |                        |               |               |              |                 | 5.6<br>(.22)                                   | 8.6 (.34)    | 47-63-101-24   | 47-63-121-24    | 47-63-141-24 | 47-63-161-20             | 47-63-181-24                |
| P.C. Board Style   | 11.5<br>(.45) | 8.3<br>(.33)  | 1.6<br>(.061)          | ~             | ~             | 0.8<br>(.03) | ~               | 1.5<br>(.06)                                   | 4.5 (.18)    | 47-65-101-34   | 47-65-121-34    | 47-65-141-34 | 47-65-161-30             | 47-65-181-34                |
| Flare-In Style     | 11.5<br>(.45) | 8.1<br>(.32)  | 0.8<br>(.031)          | 1.5<br>(.058) | 0.4<br>(.015) | 0.6<br>(.03) | 1 (.041)        | 0.8<br>(.03)                                   | 4 (.16)      | 47-10-101-14   | 47-10-121-14    | 47-10-141-14 | 47-10-161-10             | 47-10-181-14                |
|                    |               |               | 1.5<br>(.059)          | 2.5<br>(.100) | 0.4<br>(.015) |              | 1.8 (.070)      | 1.5<br>(.06)                                   | 4.7 (.19)    | 47-10-102-14   | 47-10-122-14    | 47-10-142-14 | 47-10-162-10             | 47-10-182-14                |
|                    |               |               | 2.5 (.1)               | 4<br>(.156)   | 0.8<br>(.031) |              | 2.6 (.104)      | 2.5 (.10)                                      | 5.7 (.22)    | 47-10-103-14   | 47-10-123-14    | 47-10-143-14 | 47-10-163-10             | 47-10-183-14                |
|                    |               |               | 4<br>(.157)            | 5.6<br>(.219) | 2.4<br>(.093) |              | 4.2 (.166)      | 4 (.16)                                        | 7.2 (.28)    | 47-10-105-14   | 47-10-125-14    | 47-10-145-14 | 47-10-165-10             | 47-10-185-14                |
|                    |               |               | 5.6<br>(.220)          | 7.1<br>(.281) | 4<br>(.156)   |              | 5.8 (.229)      | 5.6<br>(.22)                                   | 8.8 (.35)    | 47-10-107-14   | 47-10-127-14    | 47-10-147-14 | 47-10-167-10             | 47-10-187-14                |
|                    |               |               | 0.8<br>(.031)          | 1.5<br>(.058) | 0.4<br>(.015) |              | 1 (.041)        | 2.5 (.10)                                      | 5.7 (.22)    | 47-11-101-14   | 47-11-121-14    | 47-11-141-14 | 47-11-161-10             | 47-11-181-14                |
|                    |               |               |                        |               |               |              |                 | 4 (.16)                                        | 7.2 (.28)    | 47-12-101-14   | 47-12-121-14    | 47-12-141-14 | 47-12-161-10             | 47-12-181-14                |
|                    |               |               |                        |               |               |              |                 | 5.6<br>(.22)                                   | 8.8 (.35)    | 47-13-101-14   | 47-13-121-14    | 47-13-141-14 | 47-13-161-10             | 47-13-181-14                |
|                    |               |               | 1.5<br>(.059)          | 2.5<br>(.100) | 0.4<br>(.015) |              | 1.8 (.070)      | 3.2<br>(.13)                                   | 6.4 (.25)    | 47-11-102-14   | 47-11-122-14    | 47-11-142-14 | 47-11-162-10             | 47-11-182-14                |
|                    |               |               |                        |               |               |              |                 | 4.7 (.19)                                      | 7.9 (.31)    | 47-12-102-14   | 47-12-122-14    | 47-12-142-14 | 47-12-162-10             | 47-12-182-14                |
|                    |               |               |                        |               |               |              |                 | 6.3<br>(.25)                                   | 9.5 (.37)    | 47-13-102-14   | 47-13-122-14    | 47-13-142-14 | 47-13-162-10             | 47-13-182-14                |
|                    |               |               | Floating Style         | 11.4<br>(.45) | 8.6<br>(.34)  |              | ~               | 0.8<br>(.031)                                  | 2<br>(.080)  | 2.1<br>(.08)   | 2.6 (.101)      | 1.9 (.07)    | 5.1 (.20)                | 47-10-110-14                |
| 3.4 (.13)          | 6.6 (.26)     | 47-11-110-14  |                        |               |               | 47-11-130-14 |                 |                                                |              |                |                 | 47-11-150-14 | 47-11-170-10             | 47-11-190-14                |
| 5 (.19)            | 8.2 (.32)     | 47-12-110-14  |                        |               |               | 47-12-130-14 |                 |                                                |              |                |                 | 47-12-150-14 | 47-12-170-10             | 47-12-190-14                |
| 0.8<br>(.031)      | 1.6<br>(.063) | 2.8<br>(.111) |                        |               |               | 3.4 (.132)   | 1.9 (.07)       | 5.1 (.20)                                      | 47-10-111-14 |                | 47-10-131-14    | 47-10-151-14 | 47-10-171-10             | 47-10-191-14                |
|                    |               |               |                        |               |               |              | 3.4 (.13)       | 6.6 (.26)                                      | 47-11-111-14 |                | 47-11-131-14    | 47-11-151-14 | 47-11-171-10             | 47-11-191-14                |
|                    |               |               |                        |               |               |              | 5 (.19)         | 8.2 (.32)                                      | 47-12-111-14 |                | 47-12-131-14    | 47-12-151-14 | 47-12-171-10             | 47-12-191-14                |
| 1.6<br>(.063)      | 2.4<br>(.094) | 3.6<br>(.143) |                        |               |               | 4.2 (.164)   | 3.4 (.13)       | 6.6 (.26)                                      | 47-10-112-14 |                | 47-10-132-14    | 47-10-152-14 | 47-10-172-10             | 47-10-192-14                |
|                    |               |               |                        |               |               |              | 5 (.19)         | 8.2 (.32)                                      | 47-11-112-14 |                | 47-11-132-14    | 47-11-152-14 | 47-11-172-10             | 47-11-192-14                |
|                    |               |               |                        |               |               |              |                 |                                                |              |                |                 |              |                          |                             |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64  
Change 3 to 7: 47-80-102-34  
47-80-102-74



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · 6-32 thread size

- Smooth knob meets UL-1950
- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer  
P.C. board style: 300 Series stainless steel, passivated  
Flare-in, floating and snap-in: Aluminum, natural

Knob: Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

### Installation Notes

See pages 468-469, 543

### Notes



To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

### Recess Styles

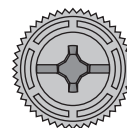
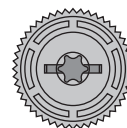
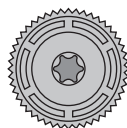
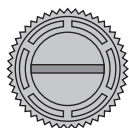
Slotted

No. 2 Phillips

T15 TORX®

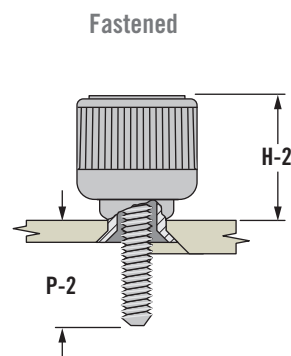
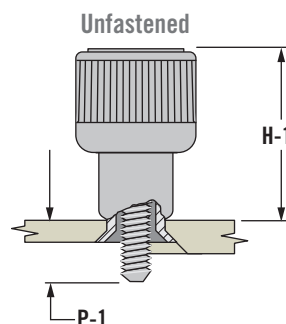
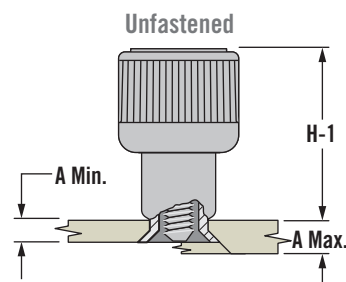
T15 TORX® /  
Slot Combination

No. 2 Phillips /  
Slot Combination



### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles

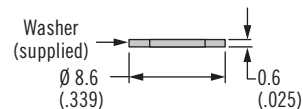
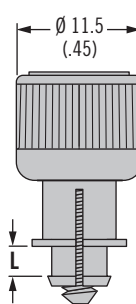
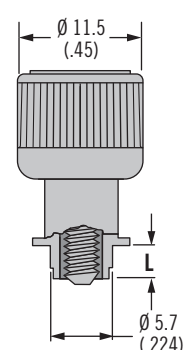
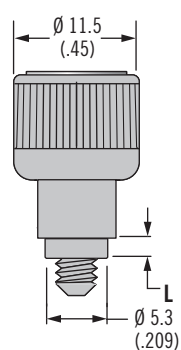
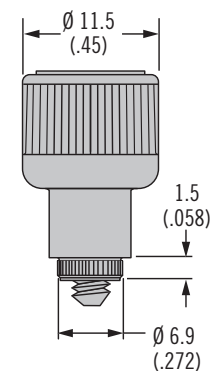
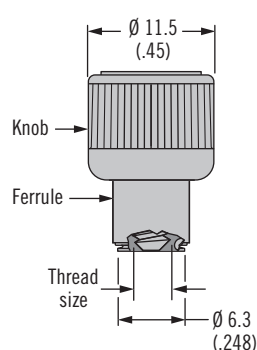
Press-In Style

P.C. Board Style

Flare-In Style

Floating Style

Snap-In Style



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Dimensions in millimeters (inch) unless otherwise stated



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| Installation Style | Knob Height   |               | Outer Panel Dimensions |            | B          | Total Float  | Flange Length L | Screw Projection Beyond Outer Surface of Panel |              | Part Number    |                 |              |                          |                             |  |
|--------------------|---------------|---------------|------------------------|------------|------------|--------------|-----------------|------------------------------------------------|--------------|----------------|-----------------|--------------|--------------------------|-----------------------------|--|
|                    | H-1           | H-2           | A Min.                 | A Max.     |            |              |                 | P-1                                            | P-2          | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |  |
| Press-In Style     | 15.9<br>(.63) | 11.2<br>(.44) | 0.9 (.036)             | ~          | ~          | 0.8<br>(.03) | ~               | 0.5 (.02)                                      | 5.3 (.21)    | 47-60-201-24   | 47-60-221-24    | 47-60-241-24 | 47-60-261-20             | 47-60-281-24                |  |
|                    |               |               |                        |            |            |              |                 | 2.1 (.08)                                      | 6.9 (.27)    | 47-61-201-24   | 47-61-221-24    | 47-61-241-24 | 47-61-261-20             | 47-61-281-24                |  |
|                    |               |               |                        |            |            |              |                 | 3.7 (.15)                                      | 8.5 (.33)    | 47-62-201-24   | 47-62-221-24    | 47-62-241-24 | 47-62-261-20             | 47-62-281-24                |  |
|                    |               |               |                        |            |            |              |                 | 5.3 (.21)                                      | 10.1 (.40)   | 47-63-201-24   | 47-63-221-24    | 47-63-241-24 | 47-63-261-20             | 47-63-281-24                |  |
| P.C. Board Style   | 14.8<br>(.58) | 10<br>(.39)   | 1.6 (.061)             | ~          | ~          | 0.8<br>(.03) | ~               | 1.4 (.06)                                      | 6.1 (.24)    | 47-65-201-34   | 47-65-221-34    | 47-65-241-34 | 47-65-261-30             | 47-65-281-34                |  |
| Flare-In Style     | 15.3<br>(.60) | 10.4<br>(.41) | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) | 0.8<br>(.03) | 1.8 (.07)       | 1.1 (.04)                                      | 6 (.24)      | 47-10-202-14   | 47-10-222-14    | 47-10-242-14 | 47-10-262-10             | 47-10-282-14                |  |
|                    |               |               | 3.2 (.125)             | 4.8 (.189) | 1.6 (.062) |              | 3.4 (.135)      | 2.7 (.11)                                      | 7.6 (.30)    | 47-10-204-14   | 47-10-224-14    | 47-10-244-14 | 47-10-264-10             | 47-10-284-14                |  |
|                    |               |               | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |              | 5 (.197)        | 4.3 (.17)                                      | 9.2 (.36)    | 47-10-206-14   | 47-10-226-14    | 47-10-246-14 | 47-10-266-10             | 47-10-286-14                |  |
|                    |               |               | 6.4 (.250)             | 7.9 (.312) | 4.8 (.189) |              | 6.1 (.26)       | 5.9 (.23)                                      | 10.8 (.43)   | 47-10-208-14   | 47-10-228-14    | 47-10-248-14 | 47-10-268-10             | 47-10-288-14                |  |
|                    |               |               | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |              | 1.8 (.07)       | 2.7 (.11)                                      | 7.6 (.30)    | 47-11-202-14   | 47-11-222-14    | 47-11-242-14 | 47-11-262-10             | 47-11-282-14                |  |
|                    |               |               | 3.2 (.125)             | 4.8 (.189) | 1.6 (.062) |              | 3.4 (.135)      | 4.3 (.17)                                      | 9.2 (.36)    | 47-12-202-14   | 47-12-222-14    | 47-12-242-14 | 47-12-262-10             | 47-12-282-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.9 (.23)                                      | 10.8 (.43)   | 47-13-202-14   | 47-13-222-14    | 47-13-242-14 | 47-13-262-10             | 47-13-282-14                |  |
|                    |               |               |                        |            |            |              |                 | 1.6 (.062)                                     | 4.8 (.189)   | 47-11-204-14   | 47-11-224-14    | 47-11-244-14 | 47-11-264-10             | 47-11-284-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.9 (.23)                                      | 10.8 (.43)   | 47-12-204-14   | 47-12-224-14    | 47-12-244-14 | 47-12-264-10             | 47-12-284-14                |  |
|                    |               |               | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |              | 5 (.197)        | 5.9 (.23)                                      | 10.8 (.43)   | 47-11-206-14   | 47-11-226-14    | 47-11-246-14 | 47-11-266-10             | 47-11-286-14                |  |
| Floating Style     | 15.3<br>(.60) | 10.6<br>(.42) | ~                      | 0.8 (.031) | 2.1 (.083) | 2.2<br>(.09) | 2.9 (.113)      | 2.4 (.09)                                      | 7.2 (.28)    | 47-10-210-14   | 47-10-230-14    | 47-10-250-14 | 47-10-270-10             | 47-10-290-14                |  |
|                    |               |               |                        |            |            |              | 3.7 (.144)      | 4 (.16)                                        | 8.8 (.35)    | 47-11-210-14   | 47-11-230-14    | 47-11-250-14 | 47-11-270-10             | 47-11-290-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.6 (.22)                                      | 10.4 (.41)   | 47-12-210-14   | 47-12-230-14    | 47-12-250-14 | 47-12-270-10             | 47-12-290-14                |  |
|                    |               |               |                        |            |            |              |                 | 2.4 (.09)                                      | 7.2 (.28)    | 47-10-211-14   | 47-10-231-14    | 47-10-251-14 | 47-10-271-10             | 47-10-291-14                |  |
|                    |               |               | 0.8 (.031)             | 1.6 (.063) | 2.9 (.114) |              | 4.5 (.176)      | 4 (.16)                                        | 8.8 (.35)    | 47-11-211-14   | 47-11-231-14    | 47-11-251-14 | 47-11-271-10             | 47-11-291-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.6 (.22)                                      | 10.4 (.41)   | 47-12-211-14   | 47-12-231-14    | 47-12-251-14 | 47-12-271-10             | 47-12-291-14                |  |
|                    |               |               |                        |            |            |              |                 | 4 (.16)                                        | 8.8 (.35)    | 47-10-212-14   | 47-10-232-14    | 47-10-252-14 | 47-10-272-10             | 47-10-292-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.6 (.22)                                      | 10.4 (.41)   | 47-11-212-14   | 47-11-232-14    | 47-11-252-14 | 47-11-272-10             | 47-11-292-14                |  |
| Snap-In Style      | 15.3<br>(.60) | 10.6<br>(.42) | 0.5 (.020)             | 1 (.039)   | 2 (.079)   | 0.8<br>(.03) | 1.1 (.044)      | 0.8 (.03)                                      | 5.6 (.22)    | 47-60-210-14   | 47-60-230-14    | 47-60-250-14 | 47-60-270-10             | 47-60-290-14                |  |
|                    |               |               |                        |            |            |              | 2.4 (.09)       | 7.2 (.28)                                      | 47-61-210-14 | 47-61-230-14   | 47-61-250-14    | 47-61-270-10 | 47-61-290-14             |                             |  |
|                    |               |               |                        |            |            |              | 4 (.16)         | 8.8 (.35)                                      | 47-62-210-14 | 47-62-230-14   | 47-62-250-14    | 47-62-270-10 | 47-62-290-14             |                             |  |
|                    |               |               |                        |            |            |              | 5.6 (.22)       | 10.4 (.41)                                     | 47-63-210-14 | 47-63-230-14   | 47-63-250-14    | 47-63-270-10 | 47-63-290-14             |                             |  |
|                    |               |               | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |              | 1.7 (.067)      | 2.4 (.09)                                      | 7.2 (.28)    | 47-60-212-14   | 47-60-232-14    | 47-60-252-14 | 47-60-272-10             | 47-60-292-14                |  |
|                    |               |               |                        |            |            |              |                 | 4 (.16)                                        | 8.8 (.35)    | 47-61-212-14   | 47-61-232-14    | 47-61-252-14 | 47-61-272-10             | 47-61-292-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.6 (.22)                                      | 10.4 (.41)   | 47-62-212-14   | 47-62-232-14    | 47-62-252-14 | 47-62-272-10             | 47-62-292-14                |  |
|                    |               |               |                        |            |            |              |                 | 5.6 (.22)                                      | 10.4 (.41)   | 47-62-212-14   | 47-62-232-14    | 47-62-252-14 | 47-62-272-10             | 47-62-292-14                |  |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64  
Change 3 to 7: 47-80-102-34  
47-80-102-74



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · 8-32 thread size

- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer

Flare-in, floating and snap-in:

Aluminum, natural

Knob: Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

### Installation Notes

See pages 468-469, 543

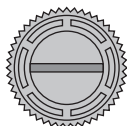
### Notes



To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

### Recess Styles

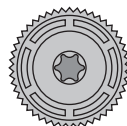
Slotted



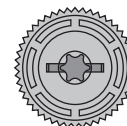
No. 2 Phillips



T25 TORX®



T25 TORX® /  
Slot Combination



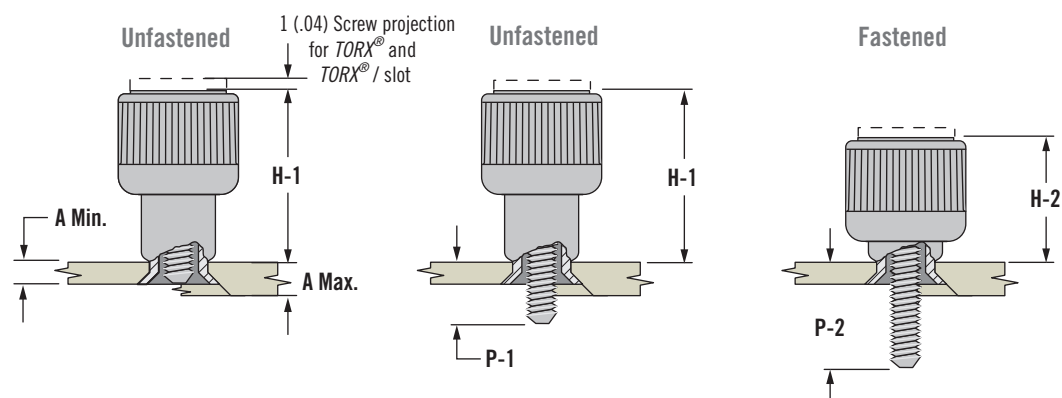
No. 2 Phillips /  
Slot Combination



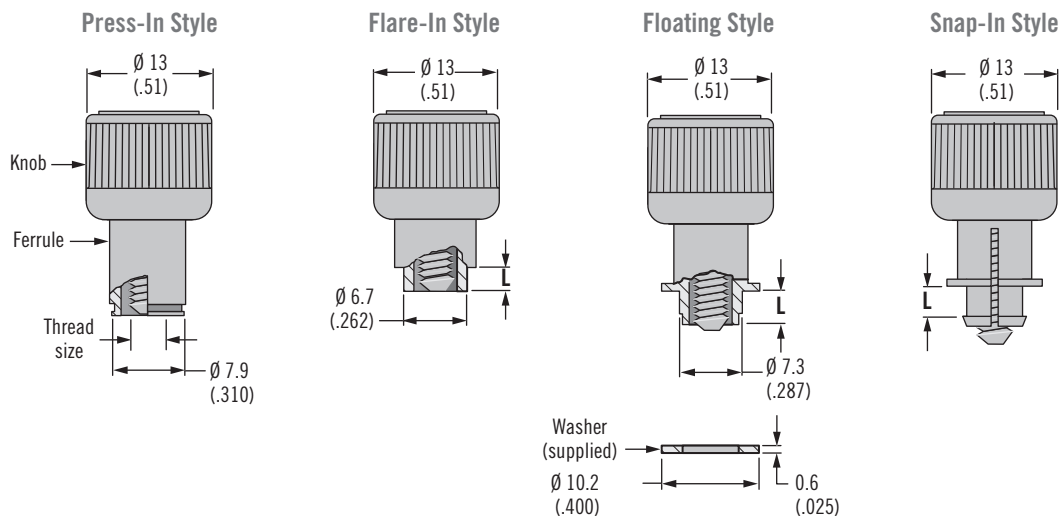
ACTUAL  
SIZE

### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



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Dimensions in millimeters (inch) unless otherwise stated



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| Installation Style | Knob Height |              | Outer Panel Dimensions |            | B          | Total Float  | Flange Length L | Screw Projection Beyond Outer Surface of Panel |              | Part Number    |                 |              |                          |                             |              |              |              |              |
|--------------------|-------------|--------------|------------------------|------------|------------|--------------|-----------------|------------------------------------------------|--------------|----------------|-----------------|--------------|--------------------------|-----------------------------|--------------|--------------|--------------|--------------|
|                    | H-1         | H-2          | A Min.                 | A Max.     |            |              |                 | P-1                                            | P-2          | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |              |              |              |              |
| Press-In Style     | 16.2 (.64)  | 11.2 (.44)   | 0.9 (.036)             | ~          | ~          | 0.8 (.03)    | ~               | 0.5 (.02)                                      | 5.6 (.22)    | 47-60-301-24   | 47-60-321-24    | 47-60-341-20 | 47-60-361-20             | 47-60-381-20                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 2 (.08)                                        | 7.1 (.28)    | 47-61-301-24   | 47-61-321-24    | 47-61-341-20 | 47-61-361-20             | 47-61-381-20                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 3.8 (.15)                                      | 8.9 (.35)    | 47-62-301-24   | 47-62-321-24    | 47-62-341-20 | 47-62-361-20             | 47-62-381-20                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.3 (.21)                                      | 10.4 (.41)   | 47-63-301-24   | 47-63-321-24    | 47-63-341-20 | 47-63-361-20             | 47-63-381-20                |              |              |              |              |
| Flare-In Style     | 15.6 (.61)  | 10.5 (.41)   | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) | 0.9 (.03)    | 1.8 (.070)      | 1 (.04)                                        | 6 (.24)      | 47-10-302-14   | 47-10-322-14    | 47-10-342-10 | 47-10-362-10             | 47-10-382-10                |              |              |              |              |
|                    |             |              | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |              | 3.4 (.135)      | 2.8 (.11)                                      | 7.6 (.3)     | 47-10-304-14   | 47-10-324-14    | 47-10-344-10 | 47-10-364-10             | 47-10-384-10                |              |              |              |              |
|                    |             |              | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |              | 5 (.197)        | 4.3 (.17)                                      | 9.2 (.36)    | 47-10-306-14   | 47-10-326-14    | 47-10-346-10 | 47-10-366-10             | 47-10-386-10                |              |              |              |              |
|                    |             |              | 6.3 (.251)             | 7.9 (.312) | 4.8 (.189) |              | 6.6 (.260)      | 5.8 (.23)                                      | 10.8 (.43)   | 47-10-308-14   | 47-10-328-14    | 47-10-348-10 | 47-10-368-10             | 47-10-388-10                |              |              |              |              |
|                    |             |              | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |              | 1.8 (.07)       | 2.8 (.11)                                      | 7.6 (.3)     | 47-11-302-14   | 47-11-322-14    | 47-11-342-10 | 47-11-362-10             | 47-11-382-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 4.3 (.17)                                      | 9.2 (.36)    | 47-12-302-14   | 47-12-322-14    | 47-12-342-10 | 47-12-362-10             | 47-12-382-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.8 (.23)                                      | 10.8 (.43)   | 47-13-302-14   | 47-13-322-14    | 47-13-342-10 | 47-13-362-10             | 47-13-382-10                |              |              |              |              |
|                    |             |              | 3.2 (.126)             | 4.8 (.189) | 1.6 (.062) |              | 3.4 (.135)      | 4.3 (.17)                                      | 9.2 (.36)    | 47-11-304-14   | 47-11-324-14    | 47-11-344-10 | 47-11-364-10             | 47-11-384-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.8 (.23)                                      | 10.8 (.43)   | 47-12-304-14   | 47-12-324-14    | 47-12-344-10 | 47-12-364-10             | 47-12-384-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.8 (.23)                                      | 10.8 (.43)   | 47-11-306-14   | 47-11-326-14    | 47-11-346-10 | 47-11-366-10             | 47-11-386-10                |              |              |              |              |
|                    |             |              | Floating Style         | 16 (.63)   | 11.2 (.44) |              | ~               | 0.8 (.031)                                     | 2.3 (.09)    | 2.3 (.09)      | 3.2 (.127)      | 2.3 (.09)    | 7.1 (.28)                | 47-10-310-14                | 47-10-330-14 | 47-10-350-10 | 47-10-370-10 | 47-10-390-10 |
|                    |             |              |                        |            |            |              |                 |                                                |              |                |                 | 3.8 (.15)    | 8.9 (.35)                | 47-11-310-14                | 47-11-330-14 | 47-11-350-10 | 47-11-370-10 | 47-11-390-10 |
| 5.6 (.22)          | 10.4 (.41)  | 47-12-310-14 |                        |            |            | 47-12-330-14 |                 |                                                |              |                |                 | 47-12-350-10 | 47-12-370-10             | 47-12-390-10                |              |              |              |              |
| 0.8 (.031)         | 1.6 (.063)  | 3.1 (.121)   |                        |            |            | 4 (.158)     | 2.3 (.09)       | 7.1 (.28)                                      | 47-10-311-14 |                | 47-10-331-14    | 47-10-351-10 | 47-10-371-10             | 47-10-391-10                |              |              |              |              |
|                    |             |              |                        |            |            |              | 3.8 (.15)       | 8.9 (.35)                                      | 47-11-311-14 |                | 47-11-331-14    | 47-11-351-10 | 47-11-371-10             | 47-11-391-10                |              |              |              |              |
|                    |             |              |                        |            |            |              | 5.6 (.22)       | 10.4 (.41)                                     | 47-12-311-14 |                | 47-12-331-14    | 47-12-351-10 | 47-12-371-10             | 47-12-391-10                |              |              |              |              |
| 1.6 (.063)         | 2.4 (.094)  | 3.9 (.153)   |                        |            |            | 4.8 (.190)   | 3.8 (.15)       | 8.9 (.35)                                      | 47-10-312-14 |                | 47-10-332-14    | 47-10-352-10 | 47-10-372-10             | 47-10-392-10                |              |              |              |              |
|                    |             |              |                        |            |            |              | 5.6 (.22)       | 10.4 (.41)                                     | 47-11-312-14 |                | 47-11-332-14    | 47-11-352-10 | 47-11-372-10             | 47-11-392-10                |              |              |              |              |
| Snap-In Style      | 15.7 (.62)  | 11.2 (.44)   | 0.5 (.020)             | 1 (.039)   | 2 (.079)   | 0.9 (.03)    | 1.1 (.044)      | 1 (.04)                                        | 3 (.22)      | 47-60-310-14   | 47-60-330-14    | 47-60-350-10 | 47-60-370-10             | 47-60-390-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 2.8 (.11)                                      | 7.1 (.28)    | 47-61-310-14   | 47-61-330-14    | 47-61-350-10 | 47-61-370-10             | 47-61-390-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 4.3 (.17)                                      | 8.9 (.35)    | 47-63-310-14   | 47-62-330-14    | 47-62-350-10 | 47-62-370-10             | 47-62-390-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.8 (.23)                                      | 10.4 (.41)   | 47-63-310-14   | 47-63-330-14    | 47-63-350-10 | 47-63-370-10             | 47-63-390-10                |              |              |              |              |
|                    |             |              | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |              | 1.7 (.068)      | 2.8 (.11)                                      | 7.1 (.28)    | 47-60-312-14   | 47-60-332-14    | 47-60-352-10 | 47-60-372-10             | 47-60-392-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 4.3 (.17)                                      | 8.9 (.35)    | 47-61-312-14   | 47-61-332-14    | 47-61-352-10 | 47-61-372-10             | 47-61-392-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.8 (.23)                                      | 10.4 (.41)   | 47-62-312-14   | 47-62-332-14    | 47-62-352-10 | 47-62-372-10             | 47-62-392-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 2.8 (.11)                                      | 7.1 (.28)    | 47-60-314-14   | 47-60-334-14    | 47-60-354-10 | 47-60-374-10             | 47-60-394-10                |              |              |              |              |
|                    |             |              | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |              | 2.6 (.103)      | 4.3 (.17)                                      | 8.9 (.35)    | 47-61-314-14   | 47-61-334-14    | 47-61-354-10 | 47-61-374-10             | 47-61-394-10                |              |              |              |              |
|                    |             |              |                        |            |            |              |                 | 5.8 (.23)                                      | 10.4 (.41)   | 47-62-314-14   | 47-62-334-14    | 47-62-354-10 | 47-62-374-10             | 47-62-394-10                |              |              |              |              |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14

47-80-102-54

Change 2 to 6: 47-80-102-24

47-80-102-64



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20

47-90-161-21

Change 4 to 5: 47-90-101-24

47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · 10-32 thread size

- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel,  
zinc plate, chromate, plus sealer

Flare-in, floating and snap-in:

Aluminum, natural

Knob: Aluminum, natural or black  
powder coated

Screw: Hardened carbon steel,  
zinc plated, chromate, plus sealer

### Installation Notes

See pages 468-469, 543

### Notes



To ensure you receive  
**SOUTHCO®** quality parts,  
look for the segmented circle

### Recess Styles

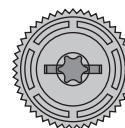
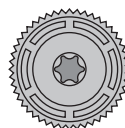
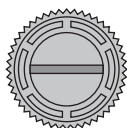
Slotted

No. 2 Phillips

T25 TORX®

T25 TORX® /  
Slot Combination

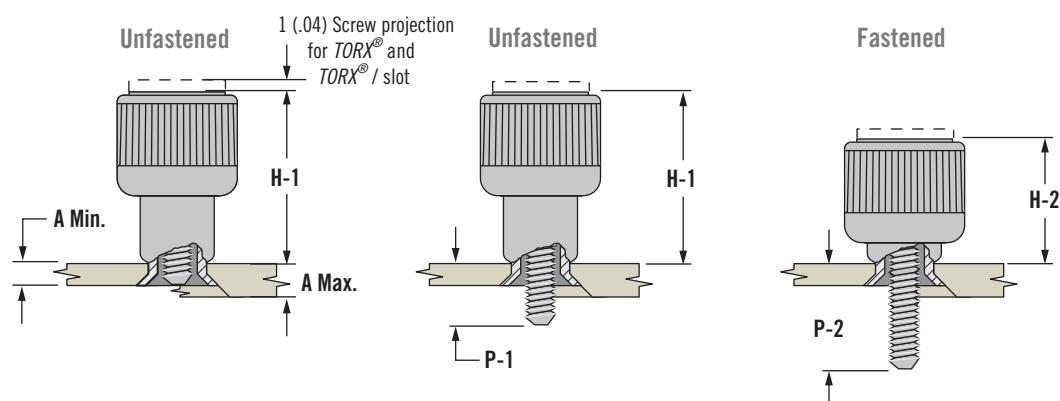
No. 2 Phillips /  
Slot Combination



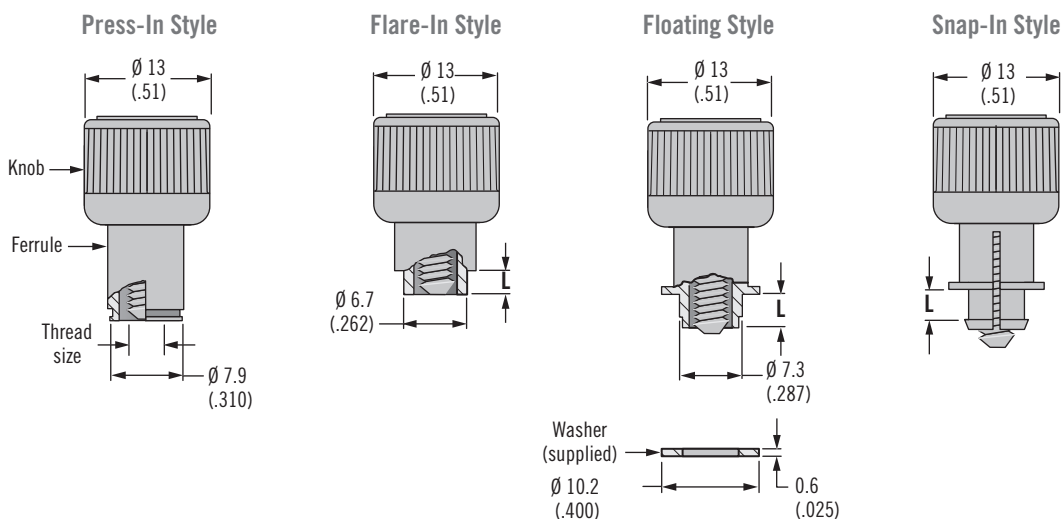
ACTUAL  
SIZE

### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated

| Installation Style | Knob Height |            | Outer Panel Dimensions |            | B          | Total Float | Flange Length L | Screw Projection Beyond Outer Surface of Panel |            | Part Number    |                 |              |                          |                             |
|--------------------|-------------|------------|------------------------|------------|------------|-------------|-----------------|------------------------------------------------|------------|----------------|-----------------|--------------|--------------------------|-----------------------------|
|                    | H-1         | H-2        | A Min.                 | A Max.     |            |             |                 | P-1                                            | P-2        | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |
| Press-In Style     | 16.2 (.64)  | 11.2 (.44) | 0.9 (.036)             | ~          | ~          | 0.6 (.02)   | ~               | 0.6 (.02)                                      | 5.5 (.22)  | 47-60-501-24   | 47-60-521-24    | 47-60-541-20 | 47-60-561-20             | 47-60-581-20                |
|                    |             |            |                        |            |            |             |                 | 2.2 (.09)                                      | 7.2 (.28)  | 47-61-501-24   | 47-61-521-24    | 47-61-541-20 | 47-61-561-20             | 47-61-581-20                |
|                    |             |            |                        |            |            |             |                 | 3.8 (.15)                                      | 8.9 (.35)  | 47-62-501-24   | 47-62-521-24    | 47-62-541-20 | 47-62-561-20             | 47-62-581-20                |
|                    |             |            |                        |            |            |             |                 | 5.4 (.21)                                      | 10.3 (.41) | 47-63-501-24   | 47-63-521-24    | 47-63-541-20 | 47-63-561-20             | 47-63-581-20                |
| Flare-In Style     | 15.6 (.61)  | 10.5 (.41) | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) | 0.6 (.02)   | 1.8 (.070)      | 1.2 (.05)                                      | 6.3 (.25)  | 47-10-502-14   | 47-10-522-14    | 47-10-542-10 | 47-10-562-10             | 47-10-582-10                |
|                    |             |            | 3.2 (.125)             | 4.7 (.187) | 1.6 (.062) |             | 3.4 (.135)      | 2.8 (.11)                                      | 7.9 (.31)  | 47-10-504-14   | 47-10-524-14    | 47-10-544-10 | 47-10-564-10             | 47-10-584-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 4.4 (.17)                                      | 9.5 (.37)  | 47-10-506-14   | 47-10-526-14    | 47-10-546-10 | 47-10-566-10             | 47-10-586-10                |
|                    |             |            | 6.3 (.251)             | 7.9 (.312) | 4.8 (.187) |             | 6.6 (.260)      | 6 (.24)                                        | 11.1 (.44) | 47-10-508-14   | 47-10-528-14    | 47-10-548-10 | 47-10-568-10             | 47-10-588-10                |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.070)      | 2.8 (.11)                                      | 7.9 (.31)  | 47-11-502-14   | 47-11-522-14    | 47-11-542-10 | 47-11-562-10             | 47-11-582-10                |
|                    |             |            | 3.2 (.125)             | 4.8 (.187) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-12-502-14   | 47-12-522-14    | 47-12-542-10 | 47-12-562-10             | 47-12-582-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 6 (.24)                                        | 11.1 (.44) | 47-13-502-14   | 47-13-522-14    | 47-13-542-10 | 47-13-562-10             | 47-13-582-10                |
|                    |             |            | 3.2 (.125)             | 4.8 (.187) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-11-504-14   | 47-11-524-14    | 47-11-544-10 | 47-11-564-10             | 47-11-584-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 6 (.24)                                        | 11.1 (.44) | 47-12-504-14   | 47-12-524-14    | 47-12-544-10 | 47-12-564-10             | 47-12-584-10                |
|                    |             |            | 1.5 (.058)             | 3.2 (.125) | 0.4 (.015) |             | 1.8 (.070)      | 2.8 (.11)                                      | 7.9 (.31)  | 47-11-506-14   | 47-11-526-14    | 47-11-546-10 | 47-11-566-10             | 47-11-586-10                |
|                    |             |            | 3.2 (.125)             | 4.8 (.187) | 1.6 (.062) |             | 3.4 (.135)      | 4.4 (.17)                                      | 9.5 (.37)  | 47-12-506-14   | 47-12-526-14    | 47-12-546-10 | 47-12-566-10             | 47-12-586-10                |
|                    |             |            | 4.8 (.189)             | 6.4 (.250) | 3.2 (.125) |             | 5 (.197)        | 6 (.24)                                        | 11.1 (.44) | 47-13-506-14   | 47-13-526-14    | 47-13-546-10 | 47-13-566-10             | 47-13-586-10                |
| Floating Style     | 16 (.63)    | 11.2 (.44) | ~                      | 0.8 (.031) | 2.3 (.090) | 2.3 (.09)   | 3.2 (.127)      | 2.3 (.09)                                      | 7.1 (.28)  | 47-10-510-14   | 47-10-530-14    | 47-10-550-10 | 47-10-570-10             | 47-10-590-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.090) |             | 3.2 (.127)      | 4 (.16)                                        | 8.8 (.35)  | 47-11-510-14   | 47-11-530-14    | 47-11-550-10 | 47-11-570-10             | 47-11-590-10                |
|                    |             |            | ~                      | 0.8 (.031) | 2.3 (.090) |             | 3.2 (.127)      | 5.6 (.22)                                      | 10.4 (.41) | 47-12-510-14   | 47-12-530-14    | 47-12-550-10 | 47-12-570-10             | 47-12-590-10                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 3.1 (.122) |             | 4 (.158)        | 2.4 (.09)                                      | 7.1 (.28)  | 47-10-511-14   | 47-10-531-14    | 47-10-551-10 | 47-10-571-10             | 47-10-591-10                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 3.1 (.122) |             | 4 (.158)        | 4 (.16)                                        | 8.8 (.35)  | 47-11-511-14   | 47-11-531-14    | 47-11-551-10 | 47-11-571-10             | 47-11-591-10                |
|                    |             |            | 0.8 (.031)             | 1.6 (.063) | 3.1 (.122) |             | 4 (.158)        | 5.6 (.22)                                      | 10.4 (.41) | 47-12-511-14   | 47-12-531-14    | 47-12-551-10 | 47-12-571-10             | 47-12-591-10                |
|                    |             |            | 1.6 (.063)             | 2.4 (.094) | 3.9 (.153) |             | 4.8 (.190)      | 4 (.16)                                        | 8.8 (.35)  | 47-10-512-14   | 47-10-532-14    | 47-10-552-10 | 47-10-572-10             | 47-10-592-10                |
|                    |             |            | 1.6 (.063)             | 2.4 (.094) | 3.9 (.153) |             | 4.8 (.190)      | 5.6 (.22)                                      | 10.4 (.41) | 47-11-512-14   | 47-11-532-14    | 47-11-552-10 | 47-11-572-10             | 47-11-592-10                |
| Snap-In Style      | 15.7 (.62)  | 11.2 (.44) | 0.5 (.020)             | 1 (.039)   | 2 (.079)   | .9 (.04)    | 1.1 (.044)      | 1.2 (.04)                                      | 5.6 (.22)  | 47-60-510-14   | 47-60-530-14    | 47-60-550-10 | 47-60-570-10             | 47-60-590-10                |
|                    |             |            | 0.5 (.020)             | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 2.8 (.11)                                      | 7.1 (.28)  | 47-61-510-14   | 47-61-530-14    | 47-61-550-10 | 47-61-570-10             | 47-61-590-10                |
|                    |             |            | 0.5 (.020)             | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-62-510-14   | 47-62-530-14    | 47-62-550-10 | 47-62-570-10             | 47-62-590-10                |
|                    |             |            | 0.5 (.020)             | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 5.9 (.23)                                      | 10.4 (.41) | 47-63-510-14   | 47-63-530-14    | 47-63-550-10 | 47-63-570-10             | 47-63-590-10                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.068)      | 2.8 (.11)                                      | 7.1 (.28)  | 47-60-512-14   | 47-60-532-14    | 47-60-552-10 | 47-60-572-10             | 47-60-592-10                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.068)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-61-512-14   | 47-61-532-14    | 47-61-552-10 | 47-61-572-10             | 47-61-592-10                |
|                    |             |            | 1 (.039)               | 1.6 (.063) | 2.6 (.103) |             | 1.7 (.068)      | 5.9 (.23)                                      | 10.4 (.41) | 47-62-512-14   | 47-62-532-14    | 47-62-552-10 | 47-62-572-10             | 47-62-592-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 2.8 (.11)                                      | 7.1 (.28)  | 47-60-514-14   | 47-60-534-14    | 47-60-554-10 | 47-60-574-10             | 47-60-594-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 4.3 (.17)                                      | 8.8 (.35)  | 47-61-514-14   | 47-61-534-14    | 47-61-554-10 | 47-61-574-10             | 47-61-594-10                |
|                    |             |            | 1.6 (.063)             | 2.5 (.098) | 3.5 (.138) |             | 2.6 (.103)      | 5.9 (.23)                                      | 10.4 (.41) | 47-62-514-14   | 47-62-534-14    | 47-62-554-10 | 47-62-574-10             | 47-62-594-10                |
|                    |             |            | 0.5 (.020)             | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 1.2 (.04)                                      | 5.6 (.22)  | 47-60-510-14   | 47-60-530-14    | 47-60-550-10 | 47-60-570-10             | 47-60-590-10                |
|                    |             |            | 0.5 (.020)             | 1 (.039)   | 2 (.079)   |             | 1.1 (.044)      | 2.8 (.11)                                      | 7.1 (.28)  | 47-61-510-14   | 47-61-530-14    | 47-61-550-10 | 47-61-570-10             | 47-61-590-10                |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 47 Captive Screws

Styled knob series · 1/4-20 thread size

- Designed for hand operation
- Spring ejected
- Wide variety of sizes, recesses and installation options

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer  
Flare-in and Floating: Aluminum, natural

Knob: Aluminum, natural or black powder coated

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

### Installation Notes

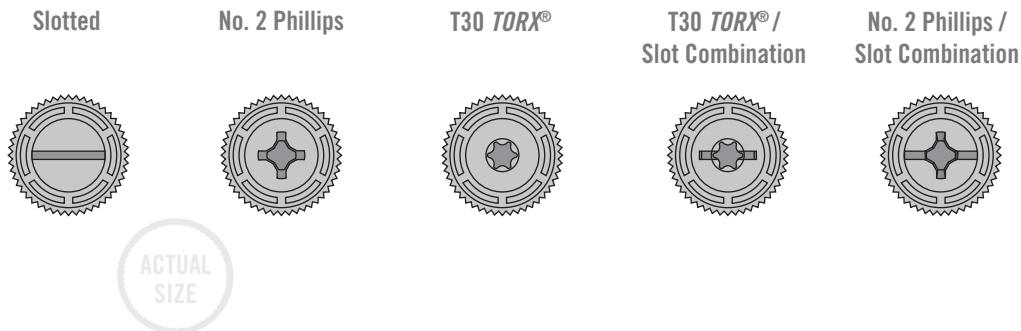
See pages 468-469, 543

### Notes



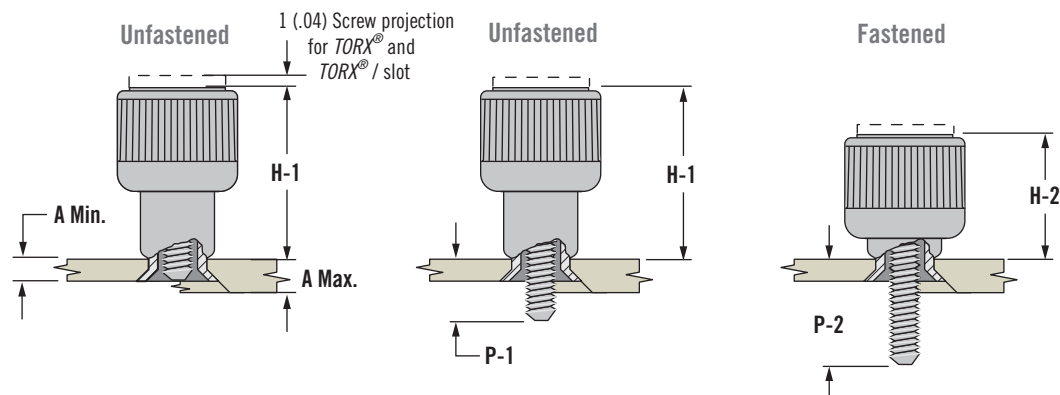
To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle

### RecessStyles

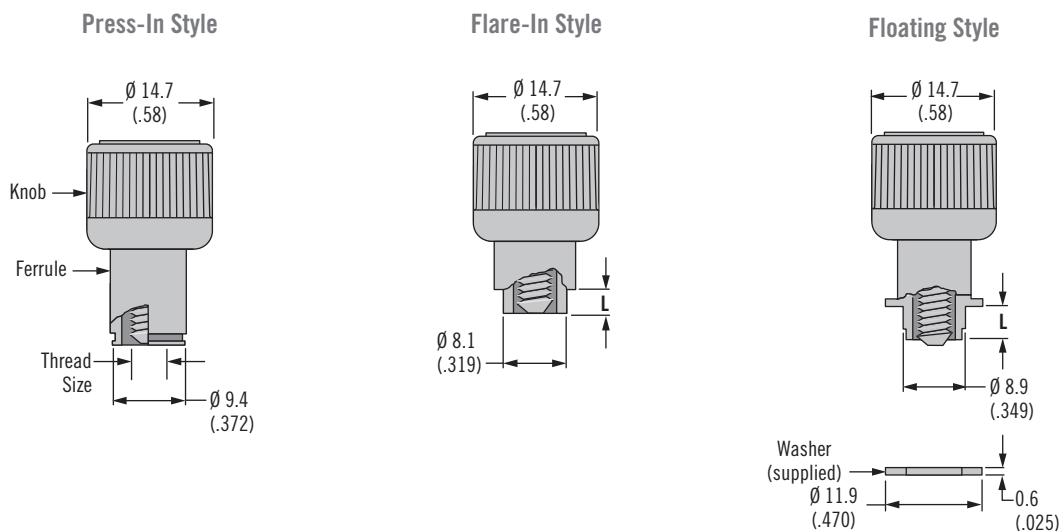


### Knob Height and Screw Projection

(Flare-in style shown)



### Installation Styles



TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated

| Installation Style | Knob Height   |               | Outer Panel Dimensions |               | B             | Total Float  | Flange Length L | Screw Projection Beyond Outer Surface of Panel |              | Part Number    |                 |              |                          |                             |  |
|--------------------|---------------|---------------|------------------------|---------------|---------------|--------------|-----------------|------------------------------------------------|--------------|----------------|-----------------|--------------|--------------------------|-----------------------------|--|
|                    | H-1           | H-2           | A Min.                 | A Max.        |               |              |                 | P-1                                            | P-2          | Slotted Recess | Phillips Recess | TORX® Recess | TORX® / Slot Combination | Phillips / Slot Combination |  |
| Press-In Style     | 20<br>(.79)   | 13.4<br>(.53) | 0.9<br>(.036)          | ~             | ~             | 0.8<br>(.03) | ~               | 0.5 (.02)                                      | 7.1 (.28)    | 47-60-601-24   | 47-60-621-24    | 47-60-641-20 | 47-60-661-20             | 47-60-681-20                |  |
|                    |               |               |                        |               |               |              |                 | 2.1 (.08)                                      | 8.7 (.34)    | 47-61-601-24   | 47-61-621-24    | 47-61-641-20 | 47-61-661-20             | 47-61-681-20                |  |
|                    |               |               |                        |               |               |              |                 | 3.7 (.15)                                      | 10.3 (.41)   | 47-62-601-24   | 47-62-621-24    | 47-62-641-20 | 47-62-661-20             | 47-62-681-20                |  |
|                    |               |               |                        |               |               |              |                 | 5.3 (.21)                                      | 11.9(.47)    | 47-63-601-24   | 47-63-621-24    | 47-63-641-20 | 47-63-661-20             | 47-63-681-20                |  |
| Flare-In Style     | 19.3<br>(.76) | 12.7<br>(.50) | 1.5<br>(.058)          | 3.2<br>(.125) | 0.4<br>(.015) | 0.9<br>(.03) | 1.8<br>(.070)   | 1.2 (.05)                                      | 7.8 (.31)    | 47-10-602-14   | 47-10-622-14    | 47-10-642-10 | 47-10-662-10             | 47-10-682-10                |  |
|                    |               |               | 3.2<br>(.126)          | 4.8<br>(.189) | 1.6<br>(.062) |              | 3.4<br>(.135)   | 2.8 (.11)                                      | 9.4 (.37)    | 47-10-604-14   | 47-10-624-14    | 47-10-644-10 | 47-10-664-10             | 47-10-684-10                |  |
|                    |               |               | 4.8<br>(.188)          | 6.4<br>(.250) | 3.2<br>(.125) |              | 5 (.197)        | 4.4 (.17)                                      | 11 (.43)     | 47-10-606-14   | 47-10-626-14    | 47-10-646-10 | 47-10-666-10             | 47-10-686-10                |  |
|                    |               |               | 6.4<br>(.251)          | 7.9<br>(.312) | 4.8<br>(.189) |              | 6.6<br>(.260)   | 6 (.24)                                        | 12.6 (.50)   | 47-10-608-14   | 47-10-628-14    | 47-10-648-10 | 47-10-668-10             | 47-10-688-10                |  |
|                    |               |               | 1.5<br>(.058)          | 3.2<br>(.125) | 0.4<br>(.015) |              | 1.8<br>(.070)   | 2.8 (.11)                                      | 9.4 (.37)    | 47-11-602-14   | 47-11-622-14    | 47-11-642-10 | 47-11-662-10             | 47-11-682-10                |  |
|                    |               |               | 3.2<br>(.126)          | 4.8<br>(.189) | 1.6<br>(.062) |              | 4.4 (.17)       | 11 (.43)                                       | 47-12-602-14 | 47-12-622-14   | 47-12-642-10    | 47-12-662-10 | 47-12-682-10             |                             |  |
|                    |               |               |                        |               |               |              | 6 (.24)         | 12.6 (.50)                                     | 47-13-602-14 | 47-13-622-14   | 47-13-642-10    | 47-13-662-10 | 47-13-682-10             |                             |  |
|                    |               |               | 3.2<br>(.126)          | 4.8<br>(.189) | 1.6<br>(.062) |              | 3.4<br>(.135)   | 4.4 (.17)                                      | 11 (.43)     | 47-11-604-14   | 47-11-624-14    | 47-11-644-10 | 47-11-664-10             | 47-11-684-10                |  |
|                    |               |               |                        |               |               |              | 6 (.24)         | 12.6 (.50)                                     | 47-12-604-14 | 47-12-624-14   | 47-12-644-10    | 47-12-664-10 | 47-12-684-10             |                             |  |
|                    |               |               | 4.8<br>(.189)          | 6.4<br>(.250) | 3.2<br>(.125) |              | 5 (.197)        | 6 (.24)                                        | 12.6 (.50)   | 47-11-606-14   | 47-11-626-14    | 47-11-646-10 | 47-11-666-10             | 47-11-686-10                |  |
| Floating Style     | 20<br>(.79)   | 13.3<br>(.52) | ~                      | 0.8<br>(.031) | 2.3<br>(.090) | 2.3<br>(.09) | 3.2<br>(.127)   | 2.1 (.08)                                      | 8.8 (.35)    | 47-10-610-14   | 47-10-630-14    | 47-10-650-10 | 47-10-670-10             | 47-10-690-10                |  |
|                    |               |               |                        |               |               |              |                 | 3.7 (.15)                                      | 10.4 (.41)   | 47-11-610-14   | 47-11-630-14    | 47-11-650-10 | 47-11-670-10             | 47-11-690-10                |  |
|                    |               |               |                        |               |               |              |                 | 5.3 (.21)                                      | 12 (.47)     | 47-12-610-14   | 47-12-630-14    | 47-12-650-10 | 47-12-670-10             | 47-12-690-10                |  |
|                    |               |               | 0.8<br>(.031)          | 1.6<br>(.063) | 3.1<br>(.122) |              | 4 (.158)        | 2.1 (.08)                                      | 8.8 (.35)    | 47-10-611-14   | 47-10-631-14    | 47-10-651-10 | 47-10-671-10             | 47-10-691-10                |  |
|                    |               |               |                        |               |               |              |                 | 3.7 (.15)                                      | 10.4 (.41)   | 47-11-611-14   | 47-11-631-14    | 47-11-651-10 | 47-11-671-10             | 47-11-691-10                |  |
|                    |               |               |                        |               |               |              |                 | 5.3 (.21)                                      | 12 (.47)     | 47-12-611-14   | 47-12-631-14    | 47-12-651-10 | 47-12-671-10             | 47-12-691-10                |  |
|                    |               |               | 1.6<br>(.063)          | 2.4<br>(.094) | 3.9<br>(.153) |              | 4.8<br>(.190)   | 3.7 (.15)                                      | 10.4 (.41)   | 47-10-612-14   | 47-10-632-14    | 47-10-652-10 | 47-10-672-10             | 47-10-692-10                |  |
|                    |               |               |                        |               |               |              |                 | 5.3 (.21)                                      | 12 (.47)     | 47-11-610-14   | 47-11-632-14    | 47-11-652-10 | 47-11-672-10             | 47-11-692-10                |  |
|                    |               |               |                        |               |               |              |                 |                                                |              |                |                 |              |                          |                             |  |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black powder coated finish, change the part number from the table as shown:

Change 1 to 5: 47-80-102-14  
47-80-102-54  
Change 2 to 6: 47-80-102-24  
47-80-102-64



For a smooth knob, change the part number from the table as shown:

Change 0 to 1: 47-90-161-20  
47-90-161-21  
Change 4 to 5: 47-90-101-24  
47-90-101-25

## Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob

For black finish and smooth knob options, minimums may apply



## 4C Captive Screws

Prism series · M3, M4 and M5 thread size

- Designate access points with color
- Color match captive screws to your industrial design
- High strength screw for use with high torque drivers
- Knurled and smooth knobs available

### Material and Finish

Knob: PC/ABS

Screw: Hardened carbon steel, zinc plate, chromate, plus sealer

Spring: 300 series stainless steel, passivated

Standoff:

Press-in: Carbon steel, zinc plate, chromate, plus sealer

PCB: Stainless steel

Flare-in and Floating:

Aluminum, natural

### Performance Details

Flammability Rating: UL94-V0

### Installation Notes

See pages 468-469, 543

### Notes

Press-in: Maximum panel hardness 170 HV (85 HRB)

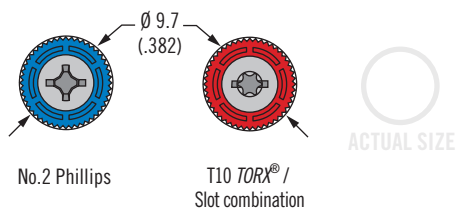
See page 480 for details on ATCA compliant captive screws.



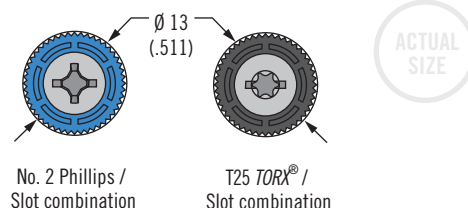
To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle.

### Recess Styles

#### M3

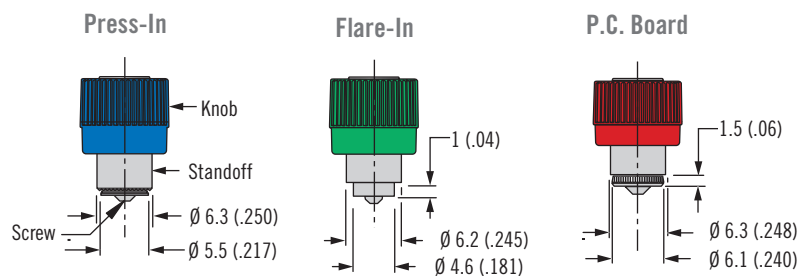


#### M4 and M5

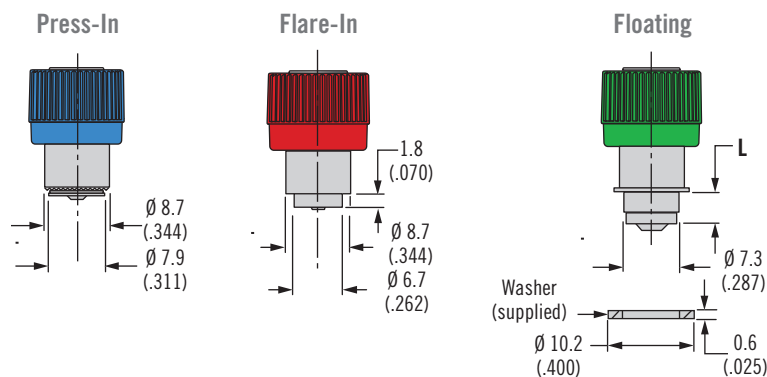


### Installation Styles

#### M3

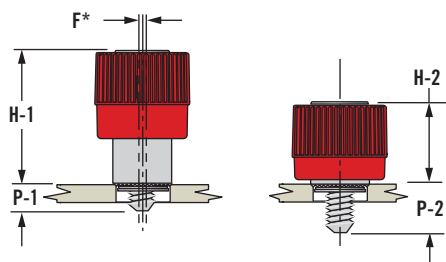


#### M4 and M5



### Knob Height and Screw Projection

(Press-in style shown)



TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated

### M3 Thread Size

| Installation Style | Outer Panel Dimensions |               | B             | Part Number       |                          | Screw Projection Beyond Outer Surface of Panel |           | Knob Height†  |              | Total Float  | Panel Preparation                                                                    |                                                                                    |
|--------------------|------------------------|---------------|---------------|-------------------|--------------------------|------------------------------------------------|-----------|---------------|--------------|--------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                    | A Min.                 | A Max.        |               | Phillips Recess   | TORX® / Slot Combination | P-1                                            | P-2       | H-1           | H-2          | F*           | Ø D                                                                                  | Ø Z                                                                                |
| Press-In Style     | 0.9<br>(.036)          | ~             | ~             | 4C-PH-M3-1P0-K000 | 4C-TS-M3-1P0-K000        | 0.8 (.03)                                      | 3.7 (.15) | 11.5<br>(.45) | 8.6<br>(.34) | 0.7<br>(.03) | 5.6 <sup>+0.04</sup> <sub>-0.04</sub><br>(.219 <sup>+0.003</sup> <sub>-0.002</sub> ) | 3.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.125 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PH-M3-2P0-K000 | 4C-TS-M3-2P0-K000        | 2.5 (.10)                                      | 5.4 (.21) |               |              |              |                                                                                      |                                                                                    |
| P.C. Board Style   | 1.6<br>(.063)          | ~             | ~             | 4C-PH-M3-1B0-K000 | 4C-TS-M3-1B0-K000        | 1.5 (.06)                                      | 3.8 (.15) | 10.9<br>(.43) | 8.5<br>(.33) | 0.7<br>(.03) | 5.6 <sup>+0.1</sup> <sub>-0.05</sub><br>(.220 <sup>+0.004</sup> <sub>-0.002</sub> )  | 3.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.220 <sup>+0.008</sup> <sub>-0.004</sub> ) |
| Flare-In Style     | 0.8<br>(.031)          | 1.5<br>(.058) | 0.4<br>(.016) | 4C-PH-M3-1F1-K000 | 4C-TS-M3-1F1-K000        | 0.8 (.03)                                      | 3.7 (.15) | 11.5<br>(.45) | 8.6<br>(.34) | 0.7<br>(.03) | 4.8 <sup>+0.08</sup> <sub>-0.05</sub><br>(.189 <sup>+0.003</sup> <sub>-0.002</sub> ) | 3.0 <sup>+0.2</sup> <sub>-0.1</sub><br>(.125 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PH-M3-2F1-K000 | 4C-TS-M3-2F1-K000        | 1.5 (.06)                                      | 5.4 (.21) |               |              |              |                                                                                      |                                                                                    |

### M4 Thread Size

| Installation Style | Outer Panel Dimensions |               | B             | L   | Part Number                 |                          | Screw Projection Beyond Outer Surface Of Panel |            | Knob Height†  |               | Total Float  | Panel Preparation                                                                    |                                                                                    |
|--------------------|------------------------|---------------|---------------|-----|-----------------------------|--------------------------|------------------------------------------------|------------|---------------|---------------|--------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                    | A Min.                 | A Max.        |               |     | Phillips / Slot Combination | TORX® / Slot Combination | P-1                                            | P-2        | H-1           | H-2           | F*           | Ø D                                                                                  | Ø Z                                                                                |
| Press-In Style     | 0.9<br>(.036)†         | ~             | ~             | ~   | 4C-PS-M4-1P0-K000           | 4C-TS-M4-1P0-K000        | 0.5 (.02)                                      | 5.6 (.22)  | 16.3<br>(.64) | 11.3<br>(.45) | 0.7<br>(.03) | 8 <sup>+0</sup> <sub>-0.08</sub><br>(.315 <sup>+0</sup> <sub>-0.003</sub> )          | 4.4 <sup>+0.2</sup> <sub>-0.1</sub><br>(.173 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               |     | 4C-PS-M4-2P0-K000           | 4C-TS-M4-2P0-K000        | 2 (.08)                                        | 7.1 (.28)  |               |               |              |                                                                                      |                                                                                    |
| Flare-In Style     | 1.5<br>(.060)          | 3.2<br>(.058) | 0.4<br>(.016) | ~   | 4C-PS-M4-1F1-K000           | 4C-TS-M4-1F1-K000        | 0.6 (.02)                                      | 5.6 (.22)  | 16.3<br>(.64) | 11.3<br>(.45) | 0.6<br>(.02) | 6.8 <sup>+0.08</sup> <sub>-0.04</sub><br>(.266 <sup>+0.005</sup> <sub>-0</sub> )     | 4.2 <sup>+0.05</sup> <sub>-0</sub><br>(.165 <sup>+0.002</sup> <sub>-0</sub> )      |
|                    |                        |               |               |     | 4C-PS-M4-2F1-K000           | 4C-TS-M4-2F1-K000        | 2.1 (.08)                                      | 7.1 (.28)  |               |               |              |                                                                                      |                                                                                    |
| Floating Style     | 0.8<br>(.031)          | 1.6<br>(.063) | 3.1<br>(.122) | 4   | 4C-PS-M4-3T2-K000           | 4C-TS-M4-3T2-K000        | 3.8 (.15)                                      | 8.8 (.35)  | 16.2<br>(.64) | 11.2<br>(.44) | 2.3<br>(.09) | 8.8 <sup>+0.08</sup> <sub>-0.03</sub><br>(.346 <sup>+0.003</sup> <sub>-0.001</sub> ) | ~                                                                                  |
|                    |                        |               |               | 4   | 4C-PS-M4-4T2-K000           | 4C-TS-M4-4T2-K000        | 5.4 (.21)                                      | 10.4 (.41) |               |               |              |                                                                                      |                                                                                    |
|                    | 1.6<br>(.063)          | 2.4<br>(.094) | 3.9<br>(.153) | 4.8 | 4C-PS-M4-3T3-K000           | 4C-TS-M4-3T3-K000        | 3.8 (.15)                                      | 8.8 (.35)  |               |               |              |                                                                                      |                                                                                    |
|                    |                        |               |               | 4.8 | 4C-PS-M4-4T3-K000           | 4C-TS-M4-4T3-K000        | 5.4 (.21)                                      | 10.4 (.41) |               |               |              |                                                                                      |                                                                                    |

### M5 Thread Size

| Installation Style | Outer Panel Dimensions |               | B             | L | Part Number                 |                          | Screw Projection Beyond Outer Surface of Panel |            | Knob Height†  |               | Total Float | Panel Preparation                                                                    |                                                                                    |
|--------------------|------------------------|---------------|---------------|---|-----------------------------|--------------------------|------------------------------------------------|------------|---------------|---------------|-------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                    | A Min.                 | A Max.        |               |   | Phillips / Slot Combination | TORX® / Slot Combination | P-1                                            | P-2        | H-1           | H-2           | F*          | Ø D                                                                                  | Ø Z                                                                                |
| Press-In Style     | 0.9<br>(.036)†         | ~             | ~             | ~ | 4C-PS-M5-1P0-K000           | 4C-TS-M5-1P0-K000        | 0.4 (.2)                                       | 5.6 (.22)  | 16.4<br>(.65) | 11.3<br>(.45) | 0.8 (.03)   | 8 <sup>+0</sup> <sub>-0.08</sub><br>(.315 <sup>+0</sup> <sub>-0.003</sub> )          | 5.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.205 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               |   | 4C-PS-M5-2P0-K000           | 4C-TS-M5-2P0-K000        | 2 (.08)                                        | 7.2 (.28)  |               |               |             |                                                                                      |                                                                                    |
| Flare-In Style     | 1.5<br>(.06)           | 3.2<br>(.058) | 0.4<br>(.016) | ~ | 4C-PS-M5-1F1-K000           | 4C-TS-M5-1F1-K000        | 0.5 (.02)                                      | 5.6 (.22)  | 16.4<br>(.65) | 11.3<br>(.45) | 0.7 (.03)   | 6.8 <sup>+0.08</sup> <sub>-0.04</sub><br>(.266 <sup>+0.005</sup> <sub>-0</sub> )     | 4.9 <sup>+0.05</sup> <sub>-0</sub><br>(.191 <sup>+0.002</sup> <sub>-0</sub> )      |
|                    |                        |               |               |   | 4C-PS-M5-2F1-K000           | 4C-TS-M5-2F1-K000        | 2.1 (.08)                                      | 7.2 (.28)  |               |               |             |                                                                                      |                                                                                    |
| Floating Style     | 0.8<br>(.031)          | 1.6<br>(.063) | 3.1<br>(.122) | 4 | 4C-PS-M5-3T2-K000           | 4C-TS-M5-3T2-K000        | 3.7 (.15)                                      | 8.9 (.35)  | 16.3<br>(.64) | 11.2<br>(.44) | 2.3 (.09)   | 8.8 <sup>+0.08</sup> <sub>-0.03</sub><br>(.346 <sup>+0.003</sup> <sub>-0.001</sub> ) | ~                                                                                  |
|                    |                        |               |               | 4 | 4C-PS-M5-4T2-K000           | 4C-TS-M5-4T2-K000        | 5.3 (.21)                                      | 10.5 (.41) |               |               |             |                                                                                      |                                                                                    |

(shown in table)



000  
Black



008  
Blue



013  
Red



014  
Green



Your Color  
Contact Southco

**Notes:** \*F indicates the maximum float in the unfastened position.  
† For panels thinner than 0.9 (.036), contact Southco.

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Dimensions in millimeters (inch) unless otherwise stated

### Part Number

See table

To indicate color, change the last three digits of the part number.  
For knob style, K = knurled and N = smooth. For smooth knob change K to N. Example:  
4C-PS-06-1P0-K000, black, knurled  
4C-PS-06-1P0-N013, red, smooth



## 4C Captive Screws

Prism series · 4-40, 6-32 and 10-32 thread size

- Designate access points with color
- Color match captive screws to your industrial design
- High strength screw for use with high torque drivers
- Knurled and smooth knobs available

### Material and Finish

Knob: PC/ABS

Screw: Hardened carbon steel, zinc plate, chromate, plus sealer

Spring: 300 series stainless steel, passivated

Standoff:

Press-in: Carbon steel, zinc plate, chromate, plus sealer

PCB: Stainless steel

Flare-in and Floating: Aluminum, natural

Performance Details

Flammability Rating: UL94-V0

### Installation Notes

See pages 468-469, 543

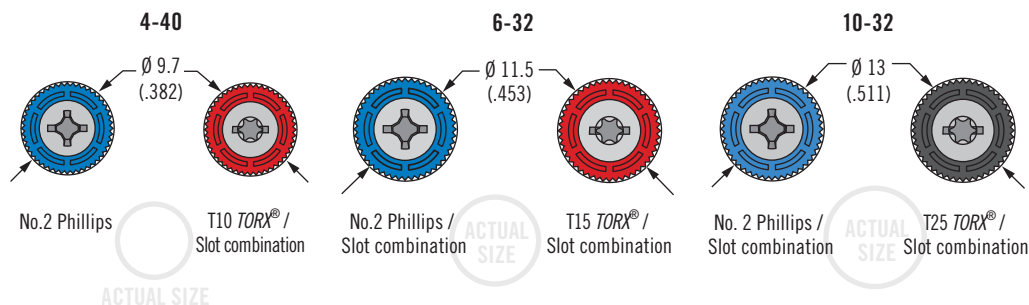
### Notes

Press-in: Maximum panel hardness 170 HV (85 HRB)



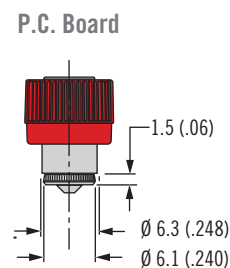
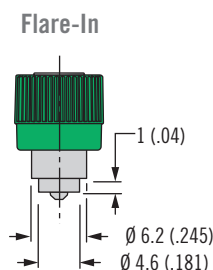
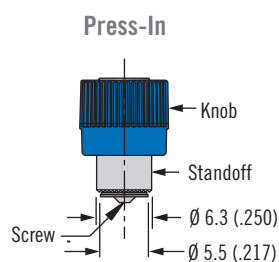
To ensure you receive **SOUTHCO®** quality parts, look for the segmented circle.

### Recess Styles

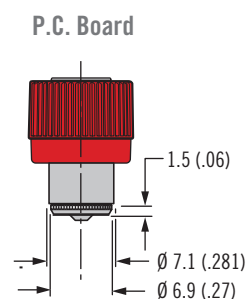
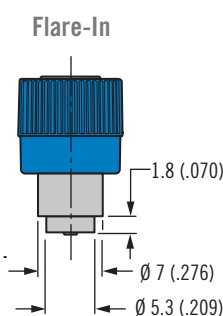
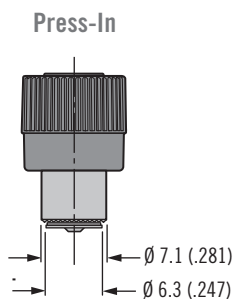


### Installation Styles

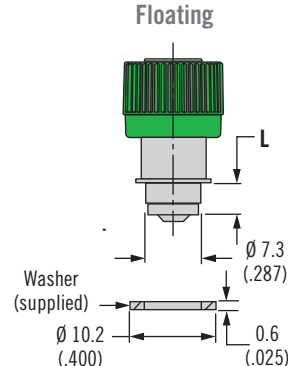
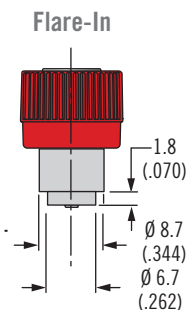
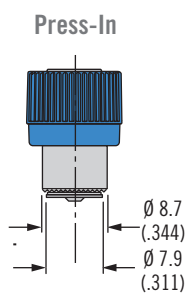
4-40



6-32

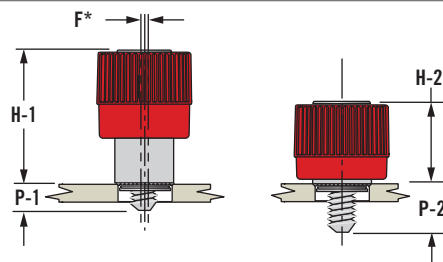


10-32



### Knob Height and Screw Projection

(Press-in style shown)



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Dimensions in millimeters (inch) unless otherwise stated

### 4-40 Thread Size

| Installation Style | Outer Panel Dimensions |               | B             | Part Number       |                          | Screw Projection Beyond Outer Surface of Panel |           | Knob Height†  |              | Total Float  | Panel Preparation                                                                    |                                                                                    |
|--------------------|------------------------|---------------|---------------|-------------------|--------------------------|------------------------------------------------|-----------|---------------|--------------|--------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                    | A Min.                 | A Max.        |               | Phillips Recess   | TORX® / Slot Combination | P-1                                            | P-2       | H-1           | H-2          |              | Ø D                                                                                  | Ø Z                                                                                |
| Press-In Style     | 0.9†<br>(.036)         | ~             | ~             | 4C-PH-04-1P0-K000 | 4C-TS-04-1P0-K000        | 0.8 (.03)                                      | 3.8 (.15) | 11.5<br>(.45) | 8.6<br>(.34) | 0.7 (.03)    | 5.6 <sup>+0.04</sup> <sub>-0.04</sub><br>(.219 <sup>+0.003</sup> <sub>-0</sub> )     | 3.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.125 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PH-04-2P0-K000 | 4C-TS-04-2P0-K000        | 2.5 (.10)                                      | 5.3 (.21) |               |              |              |                                                                                      |                                                                                    |
| P.C. Board Style   | 1.6<br>(.063)          | ~             | ~             | 4C-PH-04-1B0-K000 | 4C-TS-04-1B0-K000        | 1.5 (.06)                                      | 3.8 (.15) | 10.9<br>(.43) | 8.5<br>(.33) | 0.7<br>(.03) | 5.6 <sup>+0.1</sup> <sub>-0.05</sub><br>(.220 <sup>+0.004</sup> <sub>-0.002</sub> )  | 3.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.220 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PH-04-2B0-K000 | 4C-TS-04-2B0-K000        | 3.3 (.13)                                      | 5.5 (.22) |               |              |              |                                                                                      |                                                                                    |
| Flare-In Style     | 0.8<br>(.031)          | 1.5<br>(.059) | 0.4<br>(.016) | 4C-PH-04-1F1-K000 | 4C-TS-04-1F1-K000        | 0.8 (.03)                                      | 3.7 (.15) | 11.5<br>(.45) | 8.6<br>(.34) | 0.7<br>(.03) | 4.8 <sup>+0.08</sup> <sub>-0.05</sub><br>(.187 <sup>+0.005</sup> <sub>-0.000</sub> ) | 3.0 <sup>+0.2</sup> <sub>-0.1</sub><br>(.125 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PH-04-2F1-K000 | 4C-TS-04-2F1-K000        | 2.5 (.10)                                      | 5.4 (.21) |               |              |              |                                                                                      |                                                                                    |

### 6-32 Thread Size

| Installation Style | Outer Panel Dimensions |               | B             | Part Number                 |                          | Screw Projection Beyond Outer Surface of Panel |           | Knob Height†  |               | Total Float  | Panel Preparation                                                                |                                                                                    |
|--------------------|------------------------|---------------|---------------|-----------------------------|--------------------------|------------------------------------------------|-----------|---------------|---------------|--------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                    | A Min.                 | A Max.        |               | Phillips / Slot Combination | TORX® / Slot Combination | P-1                                            | P-2       | H-1           | H-2           |              | Ø D                                                                              | Ø Z                                                                                |
| Press-In Style     | 0.9†<br>(.036)         | ~             | ~             | 4C-PS-06-1P0-K000           | 4C-TS-06-1P0-K000        | 0.7 (.03)                                      | 5 (.20)   | 15.5<br>(.61) | 11.3<br>(.44) | 0.7<br>(.03) | 6.4 <sup>+0.03</sup> <sub>-0.05</sub><br>(.250 <sup>+0.003</sup> <sub>-0</sub> ) | 3.7 <sup>+0.2</sup> <sub>-0.1</sub><br>(.146 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PS-06-2P0-K000           | 4C-TS-06-2P0-K000        | 2.3 (.09)                                      | 6.6 (.26) |               |               |              |                                                                                  |                                                                                    |
| P.C. Board Style   | 1.5<br>(.06)           | ~             | ~             | 4C-PS-06-1B0-K000           | 4C-TS-06-1B0-K000        | 1.7 (.07)                                      | 6.2 (.25) | 14.5<br>(.57) | 10<br>(.39)   | 0.7<br>(.03) | 6.4 ± 0.1<br>(.252 ± .004)                                                       | 3.7 <sup>+0.2</sup> <sub>-0.1</sub><br>(.146 <sup>+0.008</sup> <sub>-0.004</sub> ) |
| Flare-In Style     | 1.5<br>(.059)          | 3.2<br>(.125) | 0.4<br>(.016) | 4C-PS-06-1F1-K000           | 4C-TS-06-1F1-K000        | 0.8 (.03)                                      | 5 (.20)   | 15.5<br>(.61) | 11.3<br>(.44) | 0.7<br>(.03) | 5.4 <sup>+0.1</sup> <sub>-0</sub><br>(.213 <sup>+0.005</sup> <sub>-0.000</sub> ) | 3.7 <sup>+0.2</sup> <sub>-0.1</sub><br>(.146 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               | 4C-PS-06-2F1-K000           | 4C-TS-06-2F1-K000        | 2.3 (.09)                                      | 6.6 (.26) |               |               |              |                                                                                  |                                                                                    |

### 10-32 Thread Size

| Installation Style | Outer Panel Dimensions |               | B             | L             | Part Number                 |                          | Screw Projection Beyond Outer Surface of Panel |            | Knob Height†  |               | Total Float  | Panel Preparation                                                                    |                                                                                    |
|--------------------|------------------------|---------------|---------------|---------------|-----------------------------|--------------------------|------------------------------------------------|------------|---------------|---------------|--------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                    | A Min.                 | A Max.        |               |               | Phillips / Slot Combination | TORX® / Slot Combination | P-1                                            | P-2        | H-1           | H-2           |              | Ø D                                                                                  | Ø Z                                                                                |
| Press-In Style     | 0.9†<br>(.036)         | ~             | ~             | ~             | 4C-PS-10-1P0-K000           | 4C-TS-10-1P0-K000        | 0.5 (.02)                                      | 5.6 (.22)  | 16.3<br>(.64) | 11.3<br>(.45) | 0.6<br>(.02) | 8 <sup>+0</sup> <sub>-0.08</sub><br>(.315 <sup>+0</sup> <sub>-0.003</sub> )          | 5.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.205 <sup>+0.008</sup> <sub>-0.004</sub> ) |
|                    |                        |               |               |               | 4C-PS-10-2P0-K000           | 4C-TS-10-2P0-K000        | 2 (.08)                                        | 7.1 (.28)  |               |               |              |                                                                                      |                                                                                    |
| Flare-In Style     | 1.5<br>(.058)          | 3.2<br>(.125) | 0.4<br>(.016) | 1.8<br>(.070) | 4C-PS-10-1F1-K000           | 4C-TS-10-1F1-K000        | 0.6 (.02)                                      | 5.6 (.22)  |               | 11.3<br>(.45) | 0.6<br>(.02) | 6.8 <sup>+0.08</sup> <sub>-0.04</sub><br>(.266 <sup>+0.005</sup> <sub>-0</sub> )     | 4.9 <sup>+0.05</sup> <sub>-0</sub><br>(.191 <sup>+0.002</sup> <sub>-0</sub> )      |
|                    |                        |               |               |               | 4C-PS-10-2F1-K000           | 4C-TS-10-2F1-K000        | 2.1 (.08)                                      | 7.1 (.28)  |               |               |              |                                                                                      |                                                                                    |
| Floating Style     | 0.8<br>(.031)          | 1.6<br>(.063) | 3.1<br>(.122) | 4             | 4C-PS-10-3T2-K000           | 4C-TS-10-3T2-K000        | 3.8 (.15)                                      | 8.8 (.35)  |               | 11.2<br>(.44) | 2.3<br>(.09) | 8.8 <sup>+0.08</sup> <sub>-0.03</sub><br>(.346 <sup>+0.003</sup> <sub>-0.001</sub> ) | ~                                                                                  |
|                    | 1.6<br>(.063)          | 2.4<br>(.094) | 3.9<br>(.153) | 4.8<br>(.190) | 4C-PS-10-4T2-K000           | 4C-TS-10-4T2-K000        | 5.4 (.21)                                      | 10.4 (.41) |               |               |              |                                                                                      |                                                                                    |
|                    |                        |               |               |               | 4C-PS-10-3T3-K000           | 4C-TS-10-3T3-K000        | 3.8 (.15)                                      | 8.8 (.35)  |               |               |              |                                                                                      |                                                                                    |
|                    |                        |               |               |               | 4C-PS-10-4T3-K000           | 4C-TS-10-4T3-K000        | 5.4 (.21)                                      | 10.4 (.41) |               |               |              |                                                                                      |                                                                                    |

(shown in table)



000  
Black



008  
Blue



013  
Red



014  
Green



Your Color  
Contact Southco

### Part Number

See table

To indicate color, change the last three digits of the part number. For knob style, K = knurled and N = smooth. For smooth knob change K to N. Example:  
4C-PS-06-1P0-K000, black, knurled  
4C-PS-06-1P0-N013, red, smooth

**Notes:** \*F indicates the maximum float in the unfastened position.

† For panels thinner than 0.9 (.036), contact Southco.



## 47 Captive Screws

Restricted access series · M4 and M5 thread size

- Reduces risk of unauthorized access
- Meets UL-1950, IEC 950 and EN-60950
- Hand operation to secure with tool-only removal

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer  
Flare-in and Floating: Aluminum, natural

Knob: Aluminum, natural or black organic coating

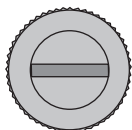
Screw: Hardened carbon steel, zinc plate, chromate, plus sealer

### Installation Notes

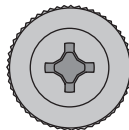
See pages 468-469, 543

### Recess Styles

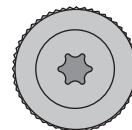
Slotted



No. 2 Phillips



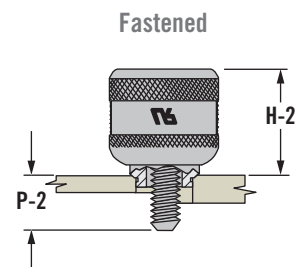
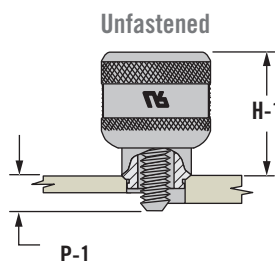
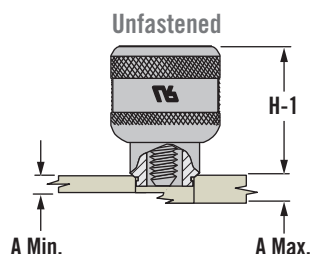
T25 TORX®



ACTUAL  
SIZE

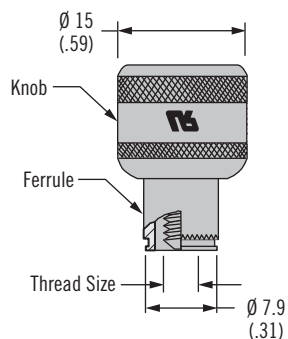
### Knob Height and Screw Projection

(Press-in style shown)

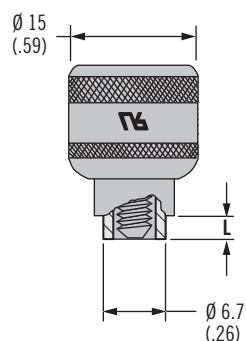


### Installation Styles

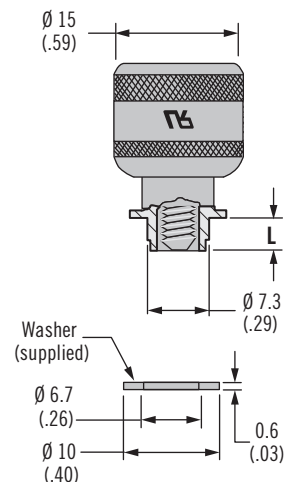
Press-In Style



Flare-In Style



Floating Style



TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated

## M4 Thread Size

| Installation Style | Knob Height |          | Outer Panel Dimensions |            | Dimension B* | Flange Length L | Screw Projection Beyond Outer Surface of Panel |            | Part Number    |                 |              |
|--------------------|-------------|----------|------------------------|------------|--------------|-----------------|------------------------------------------------|------------|----------------|-----------------|--------------|
|                    | H-1         | H-2      | A Min.                 | A Max.     |              |                 | P-1                                            | P-2        | Slotted Recess | Phillips Recess | TORX® Recess |
| Press-In Style     | 18.5 (.73)  | 14 (.55) | 0.9 (.036)             | ~          | ~            | ~               | 0.7 (.03)                                      | 5.6 (.22)  | 47-90-301-22   | 47-90-321-22    | 47-90-341-22 |
|                    |             |          |                        |            |              |                 | 2.3 (.09)                                      | 7.2 (.28)  | 47-91-301-22   | 47-91-321-22    | 47-91-341-22 |
|                    |             |          |                        |            |              |                 | 3.8 (.15)                                      | 8.7 (.34)  | 47-92-301-22   | 47-92-321-22    | 47-92-341-22 |
|                    |             |          |                        |            |              |                 | 5.4 (.21)                                      | 10.3 (.41) | 47-93-301-22   | 47-93-321-22    | 47-93-341-22 |
| Flare-In Style     | 18 (.70)    | 13 (.51) | 1.5 (.058)             | 3.2 (.125) | 0.6 (.023)   | 1.8 (.07)       | 1.4 (.06)                                      | 6.2 (.24)  | 47-80-302-22   | 47-80-322-22    | 47-80-342-22 |
|                    |             |          | 3.2 (.125)             | 4.8 (.188) | 1.6 (.062)   | 3.4 (.14)       | 3.1 (.12)                                      | 7.9 (.31)  | 47-80-304-22   | 47-80-324-22    | 47-80-344-22 |
|                    |             |          | 1.5 (.058)             | 3.2 (.125) | 0.6 (.023)   | 1.8 (.07)       | 3.1 (.12)                                      | 7.9 (.31)  | 47-81-302-22   | 47-81-322-22    | 47-81-342-22 |
|                    |             |          |                        |            |              |                 | 4.1 (.16)                                      | 8.9 (.35)  | 47-82-302-22   | 47-82-322-22    | 47-82-342-22 |
|                    |             |          |                        |            |              |                 | 6.1 (.24)                                      | 10.9 (.43) | 47-83-302-22   | 47-83-322-22    | 47-83-342-22 |
|                    |             |          |                        |            |              |                 | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-310-22   | 47-80-330-22    | 47-80-350-22 |
| Floating Style     | 18 (.70)    | 14 (.55) | 0.1 (.001)             | 0.8 (.031) | 2.3 (.09)    | 3.2 (.13)       | 3.4 (.13)                                      | 8.2 (.32)  | 47-81-310-22   | 47-81-330-22    | 47-81-350-22 |
|                    |             |          |                        |            |              |                 | 5.4 (.21)                                      | 10.2 (.40) | 47-82-310-22   | 47-82-330-22    | 47-82-350-22 |
|                    |             |          |                        |            |              |                 | 2.4 (.09)                                      | 7.2 (.22)  | 47-80-311-22   | 47-80-331-22    | 47-80-351-22 |
|                    |             |          |                        |            |              |                 | 3.4 (.13)                                      | 8.2 (.32)  | 47-81-311-22   | 47-81-331-22    | 47-81-351-22 |
|                    |             |          | 0.8 (.031)             | 1.6 (.063) | 3.1 (.12)    | 4 (.16)         | 5.4 (.21)                                      | 10.2 (.40) | 47-82-311-22   | 47-82-331-22    | 47-82-351-22 |
|                    |             |          |                        |            |              |                 | 2.4 (.09)                                      | 7.2 (.28)  | 47-80-310-22   | 47-80-330-22    | 47-80-350-22 |
|                    |             |          |                        |            |              |                 | 3.4 (.13)                                      | 8.2 (.32)  | 47-81-310-22   | 47-81-330-22    | 47-81-350-22 |
|                    |             |          |                        |            |              |                 | 5.4 (.21)                                      | 10.2 (.40) | 47-82-310-22   | 47-82-330-22    | 47-82-350-22 |

## M5 Thread Size

|                |            |          |            |            |            |           |           |            |              |              |              |
|----------------|------------|----------|------------|------------|------------|-----------|-----------|------------|--------------|--------------|--------------|
| Press-In Style | 18.5 (.73) | 14 (.55) | 0.9 (.036) | ~          | ~          | ~         | 0.7 (.03) | 5.6 (.22)  | 47-90-501-22 | 47-90-521-22 | 47-90-541-22 |
|                |            |          |            |            |            |           | 2.3 (.09) | 7.2 (.28)  | 47-91-501-22 | 47-91-521-22 | 47-91-541-22 |
|                |            |          |            |            |            |           | 3.8 (.15) | 8.7 (.34)  | 47-92-501-22 | 47-92-521-22 | 47-92-541-22 |
|                |            |          |            |            |            |           | 5.4 (.21) | 10.3 (.41) | 47-93-501-22 | 47-93-521-22 | 47-93-541-22 |
| Flare-In Style | 18 (.70)   | 13 (.51) | 1.5 (.058) | 3.2 (.125) | 0.6 (.023) | 1.8 (.07) | 1.4 (.06) | 6.2 (.24)  | 47-80-502-22 | 47-80-522-22 | 47-80-542-22 |
|                |            |          | 3.2 (.125) | 4.8 (.188) | 1.6 (.062) | 3.4 (.14) | 3.1 (.12) | 7.9 (.31)  | 47-80-504-22 | 47-80-524-22 | 47-80-544-22 |
|                |            |          | 1.5 (.058) | 3.2 (.125) | 0.6 (.023) | 1.8 (.07) | 3.1 (.12) | 7.9 (.31)  | 47-81-502-22 | 47-81-522-22 | 47-81-542-22 |
|                |            |          |            |            |            |           | 4.1 (.16) | 8.9 (.35)  | 47-82-502-22 | 47-82-522-22 | 47-82-542-22 |
|                |            |          |            |            |            |           | 6.1 (.24) | 10.9 (.43) | 47-83-502-22 | 47-83-522-22 | 47-83-542-22 |
|                |            |          |            |            |            |           | 4.1 (.16) | 8.9 (.35)  | 47-81-504-22 | 47-81-524-22 | 47-81-544-22 |
|                |            |          | 3.2 (.125) | 4.8 (.188) | 1.6 (.062) | 3.4 (.14) | 6.1 (.24) | 10.9 (.43) | 47-82-504-22 | 47-82-524-22 | 47-82-544-22 |
|                |            |          |            |            |            |           | 2.4 (.09) | 7.2 (.28)  | 47-80-510-22 | 47-80-530-22 | 47-80-550-22 |
| Floating Style | 18 (.70)   | 14 (.55) | 0.1 (.001) | 0.8 (.031) | 2.3 (.09)  | 3.2 (.13) | 3.4 (.13) | 8.2 (.32)  | 47-81-510-22 | 47-81-530-22 | 47-81-550-22 |
|                |            |          |            |            |            |           | 5.4 (.21) | 10.2 (.40) | 47-82-510-22 | 47-82-530-22 | 47-82-550-22 |
|                |            |          |            |            |            |           | 2.4 (.09) | 7.2 (.28)  | 47-80-511-22 | 47-80-531-22 | 47-80-551-22 |
|                |            |          |            |            |            |           | 3.4 (.13) | 8.2 (.32)  | 47-81-511-22 | 47-81-531-22 | 47-81-551-22 |
|                |            |          | 0.8 (.031) | 1.6 (.063) | 3.1 (.12)  | 4 (.16)   | 5.4 (.21) | 10.4 (.40) | 47-82-511-22 | 47-82-531-22 | 47-82-551-22 |
|                |            |          |            |            |            |           | 3.4 (.15) | 8.2 (.35)  | 47-80-512-22 | 47-80-532-22 | 47-80-552-22 |
|                |            |          |            |            |            |           | 5.4 (.21) | 10.2 (.40) | 47-81-512-22 | 47-81-532-22 | 47-81-552-22 |
|                |            |          | 1.6 (.063) | 2.4 (.094) | 3.9 (.15)  | 4.8 (.19) | 2.4 (.09) | 7.2 (.28)  | 47-80-510-22 | 47-80-530-22 | 47-80-550-22 |
|                |            |          |            |            |            |           | 3.4 (.13) | 8.2 (.32)  | 47-81-510-22 | 47-81-530-22 | 47-81-550-22 |
|                |            |          |            |            |            |           | 5.4 (.21) | 10.2 (.40) | 47-82-510-22 | 47-82-530-22 | 47-82-550-22 |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black finish, change the part number from the table as shown:

Change 2 to 6:      47-80-102-22  
                              47-80-102-62

### Part Number

See table

All screw part numbers shown in table are for a natural finish

For black finish minimums may apply



## 47 Captive Screws

Restricted access series · 6-32 and 10-32 thread size

- Reduces risk of unauthorized access
- Meets UL-1950, IEC 950 and EN-60950
- Hand operation to secure with tool-only removal

### Material and Finish

Ferrule:

Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer  
Flare-in and Floating: Aluminum, natural

Knob: Aluminum, natural or black organic coating

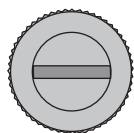
Screw: Hardened carbon steel, zinc plate, chromate, plus sealer

### Installation Notes

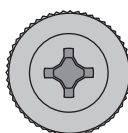
See pages 468-469, 543

### Recess Styles

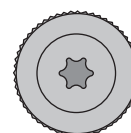
Slotted



No. 2 Phillips



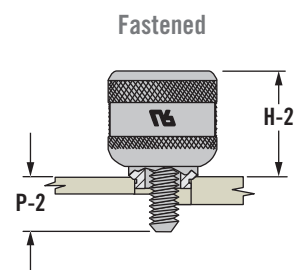
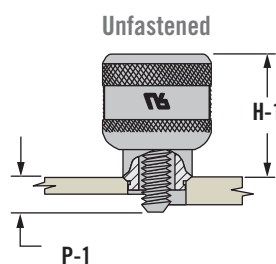
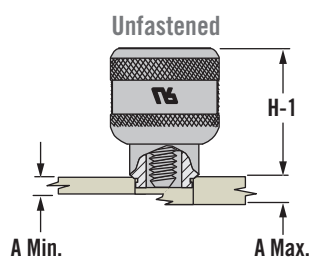
T15 TORX® - 6-32  
T25 TORX® - 10-32



ACTUAL  
SIZE

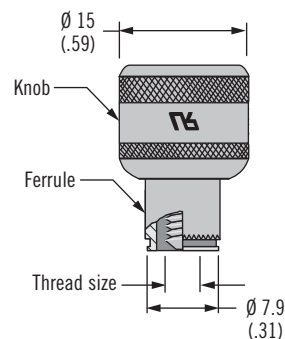
### Knob Height and Screw Projection

(Press-in style shown)

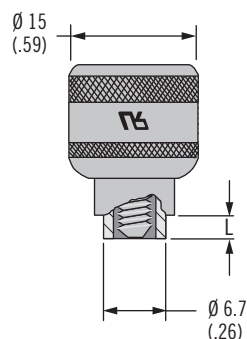


### Installation Styles

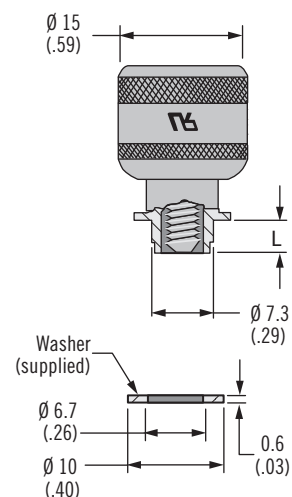
Press-In Style



Flare-In Style



Floating Style



TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated



[www.southco.com/47](http://www.southco.com/47)

**southco**  
CONNECT · CREATE · INNOVATE

## 6-32 Thread Size

| Installation Style | Knob Height† |          | Outer Panel Dimensions |            | Dimension B* | Flange Length L | Screw Projection Beyond Outer Surface Of Panel |            | Part Number    |                 |              |
|--------------------|--------------|----------|------------------------|------------|--------------|-----------------|------------------------------------------------|------------|----------------|-----------------|--------------|
|                    | H-1          | H-2      | A Min.                 | A Max.     |              |                 | P-1                                            | P-2        | Slotted Recess | Phillips Recess | TORX® Recess |
| Press-In Style     | 18.5 (.73)   | 14 (.54) | 0.9 (.036)             | ~          | ~            | ~               | 0.5 (.02)                                      | 5.3 (.21)  | 47-60-201-22   | 47-60-221-22    | 47-60-241-22 |
|                    |              |          |                        |            |              |                 | 2.3 (.09)                                      | 6.9 (.27)  | 47-61-201-22   | 47-61-221-22    | 47-61-241-22 |
|                    |              |          |                        |            |              |                 | 3.8 (.15)                                      | 8.3 (.33)  | 47-62-201-22   | 47-62-221-22    | 47-62-241-22 |
|                    |              |          |                        |            |              |                 | 5.3 (.21)                                      | 10.1 (.41) | 47-63-201-22   | 47-63-221-22    | 47-63-241-22 |
| Flare-In Style     | 18 (.70)     | 13 (.51) | 1.5 (.058)             | 3.2 (.125) | 0.6 (.023)   | 1.8 (.07)       | 1.4 (.06)                                      | 6.2 (.24)  | 47-10-202-22   | 47-10-222-22    | 47-10-242-22 |
|                    |              |          | 3.2 (.125)             | 4.8 (.189) | 1.6 (.062)   | 3.4 (.14)       | 3.1 (.12)                                      | 7.9 (.31)  | 47-10-204-22   | 47-10-224-22    | 47-10-244-22 |
|                    |              |          | 1.5 (.058)             | 3.2 (.125) | 0.6 (.023)   | 1.8 (.07)       | 3.1 (.12)                                      | 7.9 (.31)  | 47-11-202-22   | 47-11-222-22    | 47-11-242-22 |
|                    |              |          |                        |            |              |                 | 4.1 (.16)                                      | 8.9 (.35)  | 47-12-202-22   | 47-12-222-22    | 47-12-242-22 |
|                    |              |          | 6.1 (.24)              | 10.9 (.43) | 47-13-202-22 | 47-13-222-22    | 47-13-242-22                                   |            |                |                 |              |
|                    |              |          |                        |            |              |                 |                                                | 4.1 (.16)  | 8.9 (.35)      | 47-11-204-22    | 47-11-224-22 |
|                    |              |          | 6.1 (.24)              | 10.9 (.43) | 47-12-204-22 | 47-12-224-22    | 47-12-244-22                                   |            |                |                 |              |
|                    |              |          |                        |            |              |                 |                                                |            |                |                 |              |
| Floating Style     | 18 (.70)     | 14 (.54) | 0.1 (.001)             | 0.8 (.031) | 2.3 (.09)    | 3.2 (.13)       | 2.4 (.09)                                      | 7.2 (.28)  | 47-10-210-22   | 47-10-230-22    | 47-10-250-22 |
|                    |              |          |                        |            |              |                 | 3.4 (.13)                                      | 8.2 (.32)  | 47-11-210-22   | 47-11-230-22    | 47-11-250-22 |
|                    |              |          |                        |            |              |                 | 5.4 (.21)                                      | 10.2 (.40) | 47-12-210-22   | 47-12-230-22    | 47-12-250-22 |
|                    |              |          | 0.8 (.031)             | 1.6 (.063) | 3.1 (.12)    | 4 (.16)         | 2.4 (.09)                                      | 7.2 (.22)  | 47-10-211-22   | 47-10-231-22    | 47-10-251-22 |
|                    |              |          |                        |            |              |                 | 3.4 (.13)                                      | 8.2 (.32)  | 47-11-211-22   | 47-11-231-22    | 47-11-251-22 |
|                    |              |          |                        |            |              |                 | 5.4 (.21)                                      | 10.2 (.40) | 47-12-211-22   | 47-12-231-22    | 47-12-251-22 |
|                    |              |          | 1.6 (.063)             | 2.4 (.094) | 3.9 (.15)    | 4.8 (.19)       | 3.4 (.13)                                      | 8.2 (.32)  | 47-10-212-22   | 47-10-232-22    | 47-10-252-22 |
|                    |              |          |                        |            |              |                 | 5.4 (.21)                                      | 10.2 (.40) | 47-11-212-22   | 47-11-232-22    | 47-11-252-22 |
|                    |              |          |                        |            |              |                 |                                                |            |                |                 |              |
|                    |              |          |                        |            |              |                 |                                                |            |                |                 |              |

## 10-32 Thread Size

|                   |               |             |            |            |            |           |           |            |              |              |              |
|-------------------|---------------|-------------|------------|------------|------------|-----------|-----------|------------|--------------|--------------|--------------|
| Press-In<br>Style | 18.5<br>(.73) | 14<br>(.54) | 0.9 (.036) | ~          | ~          | ~         | 0.7 (.03) | 5.6 (.22)  | 47-60-501-22 | 47-60-521-22 | 47-60-541-22 |
|                   |               |             |            |            |            |           | 2.3 (.09) | 7.2 (.28)  | 47-61-501-22 | 47-61-521-22 | 47-61-541-22 |
|                   |               |             |            |            |            |           | 3.8 (.15) | 8.7 (.34)  | 47-62-501-22 | 47-62-521-22 | 47-62-541-22 |
|                   |               |             |            |            |            |           | 5.4 (.21) | 10.3 (.41) | 47-63-501-22 | 47-63-521-22 | 47-63-541-22 |
| Flare-In<br>Style | 18<br>(.70)   | 13 (.51)    | 1.5 (.058) | 3.2 (.125) | 0.6 (.023) | 1.8 (.07) | 1.4 (.06) | 6.2 (.24)  | 47-10-502-22 | 47-10-522-22 | 47-10-542-22 |
|                   |               |             | 3.2 (.125) | 4.8 (.189) | 1.6 (.062) | 3.4 (.14) | 3.1 (.12) | 7.9 (.31)  | 47-10-504-22 | 47-10-524-22 | 47-10-544-22 |
|                   |               |             | 1.5 (.058) | 3.2 (.125) | 0.6 (.023) | 1.8 (.07) | 3.1 (.12) | 7.9 (.31)  | 47-11-502-22 | 47-11-522-22 | 47-11-542-22 |
|                   |               |             |            |            |            |           | 4.1 (.16) | 8.9 (.35)  | 47-12-502-22 | 47-12-522-22 | 47-12-542-22 |
|                   |               |             | 3.2 (.125) | 4.8 (.189) | 1.6 (.062) | 3.2 (.14) | 6.1 (.24) | 10.9 (.43) | 47-13-502-22 | 47-13-522-22 | 47-13-542-22 |
|                   |               |             |            |            |            |           | 4.1 (.16) | 8.9 (.35)  | 47-11-504-22 | 47-11-524-22 | 47-11-544-22 |
|                   |               |             |            |            |            |           | 6.1 (.24) | 10.9 (.43) | 47-12-504-22 | 47-12-524-22 | 47-12-544-22 |
|                   |               |             |            |            |            |           |           |            |              |              |              |
| Floating<br>Style | 18<br>(.70)   | 14<br>(.54) | 0.1 (.001) | 0.8 (.031) | 2.3 (.09)  | 3.2 (.13) | 2.4 (.09) | 7.2 (.28)  | 47-10-510-22 | 47-10-530-22 | 47-10-550-22 |
|                   |               |             |            |            |            |           | 3.4 (.13) | 8.2 (.32)  | 47-11-510-22 | 47-11-530-22 | 47-11-550-22 |
|                   |               |             |            |            |            |           | 5.4 (.21) | 10.2 (.40) | 47-12-510-22 | 47-12-530-22 | 47-12-550-22 |
|                   |               |             | 0.8 (.031) | 1.6 (.063) | 3.1 (.12)  | 4 (.16)   | 2.4 (.09) | 7.2 (.28)  | 47-10-511-22 | 47-10-531-22 | 47-10-551-22 |
|                   |               |             |            |            |            |           | 3.4 (.13) | 8.2 (.32)  | 47-11-511-22 | 47-11-531-22 | 47-11-551-22 |
|                   |               |             |            |            |            |           | 5.4 (.21) | 10.2 (.40) | 47-12-511-22 | 47-12-531-22 | 47-12-551-22 |
|                   |               |             | 1.6 (.063) | 2.4 (.094) | 3.9 (.15)  | 4.8 (.19) | 3.4 (.13) | 8.2 (.32)  | 47-10-512-22 | 47-10-532-22 | 47-10-552-22 |
|                   |               |             |            |            |            |           | 5.4 (.21) | 10.2 (.40) | 47-11-512-22 | 47-11-532-22 | 47-11-552-22 |

Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness



To add a black finish, change the part number from the table as shown:

Change 2 to 6: 47-80-102-22  
47-80-102-62

TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC  
Dimensions in millimeters (inch) unless otherwise stated

## Part Number

See table

All screw part numbers shown in table are for a natural finish

For black finish minimums may apply



## 47/4C Captive Screws

### Panel preparation and installation

#### Installation Notes

1. Prepare panel as shown. Top edge of hole should be sharp
2. Press captive screw into panel until ferrule is installed as shown

Installation closer to the panel edge requires a fixture to constrain the panel edges

#### Notes

Recommended minimum distance from edge of panel to centerline of hole is  $1.5 \times \phi D$

#### Performance Details

Pullout force: 360 N (80 lbf)  
Side load against unfastened knob: 200 N (45 lbf)

#### Installation Notes

1. Prepare panel as shown.
2. Use pilot lead-in to guide assembly into hole and press knurl into panel until ferrule shoulder contacts surface

#### Notes

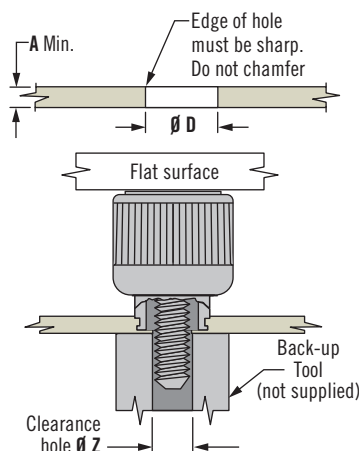
Strength data based on drilled holes in G-10 P.C. Board

#### Installation Notes

1. Prepare panel as shown.
2. Install tool in suitable press. Only LIGHT pressure will be required
3. Insert screw assembly into prepared hole in panel
4. Place work under press, center tool over screw thread and flare ferrule into counter-sink in panel. Use LIGHT pressure

Installation Force:  
1600 N (350 lbf) to 2500 N (550 lbf)  
Installation force depends on thread size

#### Press-In Style

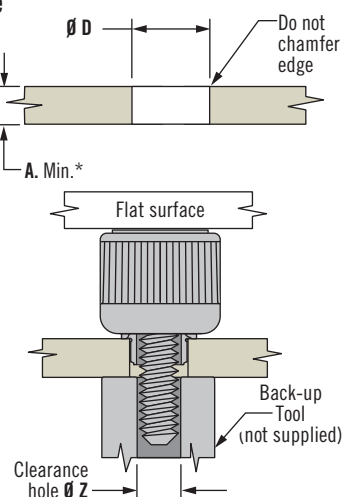


See page 543 for additional installation guidelines

| Thread Size  | $\phi D$                                                                                                                   | Clearance Hole $\phi Z$<br>$+0.2 \begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$ |
|--------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| M3 or 4-40   | $5.6 \begin{smallmatrix} +.03 \\ -.05 \end{smallmatrix}$<br>(.219 $\begin{smallmatrix} +.003 \\ -.003 \end{smallmatrix}$ ) | 3.2 (.125)                                                                             |
| M3.5 or 6-32 | $6.4 \begin{smallmatrix} +.03 \\ -.05 \end{smallmatrix}$<br>(.250 $\begin{smallmatrix} +.003 \\ -.003 \end{smallmatrix}$ ) | 3.7 (.146)                                                                             |
| M4 or 8-32   | $8 \begin{smallmatrix} +.08 \\ -.08 \end{smallmatrix}$<br>(.315 $\begin{smallmatrix} +.003 \\ -.003 \end{smallmatrix}$ )   | 4.4 (.173)                                                                             |
| M5 or 10-32  | $8 \begin{smallmatrix} +.08 \\ -.08 \end{smallmatrix}$<br>(.315 $\begin{smallmatrix} +.003 \\ -.003 \end{smallmatrix}$ )   | 5.2 (.205)                                                                             |
| M6 or 1/4-20 | $9.5 \begin{smallmatrix} +.1 \\ -.03 \end{smallmatrix}$<br>(.375 $\begin{smallmatrix} +.003 \\ -.003 \end{smallmatrix}$ )  | 6.2 (.260)                                                                             |

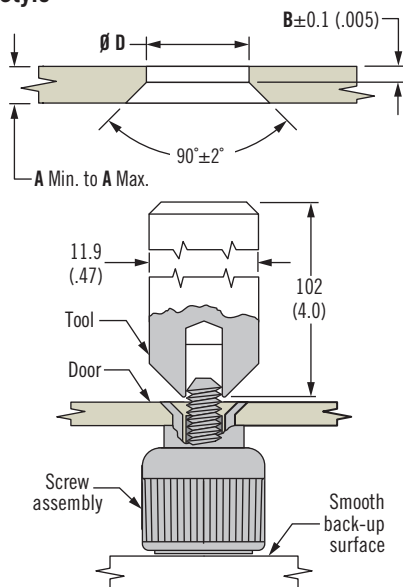
Notes: For use in material hardnesses RB85 or less, such as low carbon steels that are half hard or softer, stainless steels in the annealed condition and aluminum.

#### P.C. Board Style



| Thread Size  | $\phi D$                                                                                                                  | Clearance Hole $\phi Z$<br>$+0.2 \begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$ |
|--------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| M3 or 4-40   | $5.6 \begin{smallmatrix} +.1 \\ -.05 \end{smallmatrix}$<br>(.219 $\begin{smallmatrix} +.004 \\ -.002 \end{smallmatrix}$ ) | 3.2 (.125)                                                                             |
| M3.5 or 6-32 | $6.4 \pm 1$<br>(.252 $\pm .004$ )                                                                                         | 3.7 (.146)                                                                             |

#### Flare-In Style

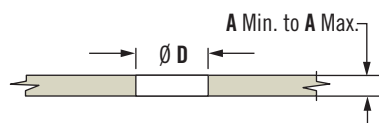
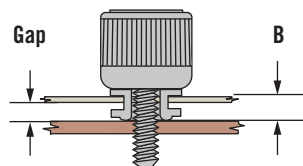


| Thread Size  | $\phi D$                                                                                                                   | Tool Part Number |
|--------------|----------------------------------------------------------------------------------------------------------------------------|------------------|
| M3 or 4-40   | $4.8 \begin{smallmatrix} +.08 \\ -.05 \end{smallmatrix}$<br>(.187 $\begin{smallmatrix} +.005 \\ -.005 \end{smallmatrix}$ ) | 47-104           |
| M3.5 or 6-32 | $5.4 \begin{smallmatrix} +.1 \\ -.0 \end{smallmatrix}$<br>(.213 $\begin{smallmatrix} +.005 \\ -.005 \end{smallmatrix}$ )   | 47-106           |
| M4 or 8-32   | $6.8 \begin{smallmatrix} +.08 \\ -.04 \end{smallmatrix}$<br>(.266 $\begin{smallmatrix} +.005 \\ -.005 \end{smallmatrix}$ ) | 47-108           |
| 10-32        | $6.8 \begin{smallmatrix} +.08 \\ -.04 \end{smallmatrix}$<br>(.266 $\begin{smallmatrix} +.005 \\ -.005 \end{smallmatrix}$ ) | 47-110           |
| M5           | $6.8 \begin{smallmatrix} +.08 \\ -.04 \end{smallmatrix}$<br>(.266 $\begin{smallmatrix} +.005 \\ -.005 \end{smallmatrix}$ ) | 47-115           |
| M6 or 1/4-20 | $8.2 \begin{smallmatrix} +.1 \\ -.03 \end{smallmatrix}$<br>(.323 $\begin{smallmatrix} +.005 \\ -.005 \end{smallmatrix}$ )  | 47-125           |

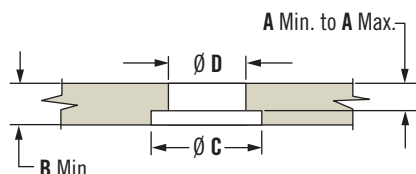
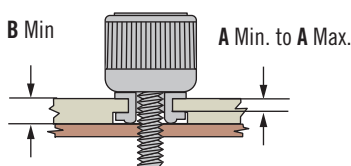
Dimensions in millimeters (inch) unless otherwise stated

## Floating Style

Panel preparation 1

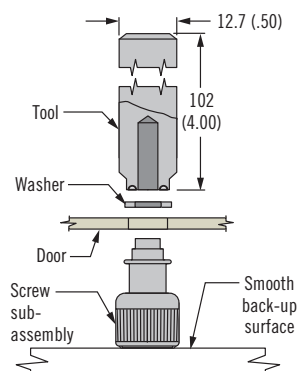


Panel preparation 2



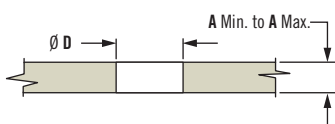
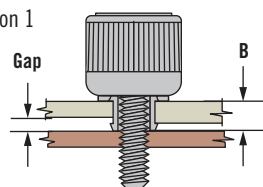
| Thread Size  | Tool Part Number |
|--------------|------------------|
| M3 or 4-40   | 47-04            |
| M3.5 or 6-32 | 47-06            |
| M4 or 8-32   | 47-08            |
| M5           | 47-05            |
| 10-32        | 47-10            |
| M6 or 1/4-20 | 47-25            |

| Thread Size  | Ø D<br><small>+0.008 (+0.003)<br/>-0.003 (-0.001)</small> | Counterbore<br>Min. Ø C |
|--------------|-----------------------------------------------------------|-------------------------|
| M3 or 4-40   | 6.4 (.250)                                                | 9.4 (.375)              |
| M3.5 or 6-32 | 7.2 (.283)                                                | 10.5 (.413)             |
| M4 or 8-32   | 8.8 (.346)                                                | 12 (.469)               |
| M5 or 10-32  | 8.8 (.346)                                                | 12 (.469)               |
| M6 or 1/4-20 | 10.5 (.413)                                               | 13.5 (.531)             |

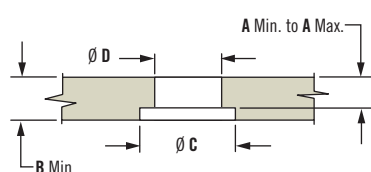
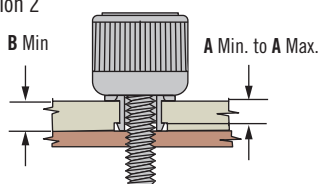


## Snap-In Style

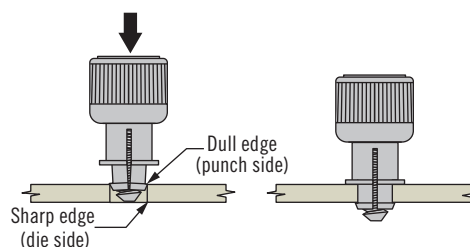
Panel preparation 1



Panel preparation 2



| Thread Size  | Ø D<br><small>+0<br/>-0.1 (±.002)</small> | Counterbore<br>Min. Ø C |
|--------------|-------------------------------------------|-------------------------|
| M3.5 or 6-32 | 6.4 (.250)                                | 7.5 (.295)              |
| M4 or 8-32   | 6.4 (.250)                                | 7.5 (.295)              |
| M5 or 10-32  | 6.4 (.250)                                | 7.5 (.295)              |



## Installation Notes

Floating and Snap-in style:

Panel preparation 1:

Requires space between inner and outer panels.

Specify the fastener for panel thickness A to fall between the range A Minimum to A Maximum:  
gap = B - A outer panel thickness

Panel preparation 2:

Counter bore the panel

(B = Minimum panel thickness) to a thickness (A) between the range of A Minimum and A Maximum

Minimum bore depth =  
panel thickness - A Maximum

For gap = Ø, panel thickness must be ≥ B value (before counterbore) for the given part number

## Notes

B and A Maximum values are provided in the corresponding fastener selection tables for each part number

If holes are drilled, top edge of hole should be chamfered



## 47-SM Captive Screws

Styled knob series · Surface Mount Technology (SMT) Style

- For installation to PC Board material utilizing surface mount technology
- Smooth knob meets UL-1950
- Designed for hand operation
- Spring ejected
- Variety of sizes, recesses

### Material and Finish

Ferrule: Steel, Tin plated

Knob:

Aluminum, natural

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

Internal spring: 300 series stainless steel passivated

Plug: Silicone rubber

### Installation Notes

Visit [www.southco.com](http://www.southco.com) for additional installation guidelines

To ensure you receive



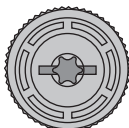
**SOUTHCO®** quality parts, look for the segmented circle.

### Part Number

See table

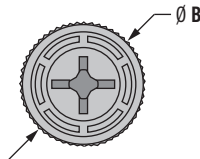
### Recess Styles

**TORX® / Slot Combination**

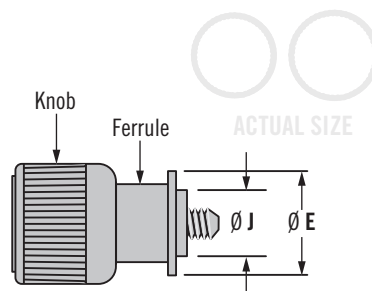


T10 TORX® / Slot Combination (M3,4-40)  
T15 TORX® / Slot (6-32)

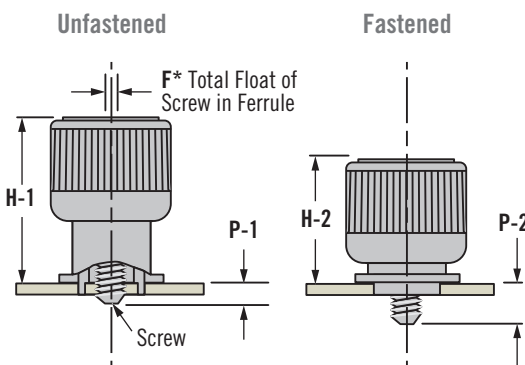
**Phillips / Slot Combination**



No. 1 Phillips / Slot Recess (M3,4-40)  
No. 2 Phillips / Slot Recess (6-32)



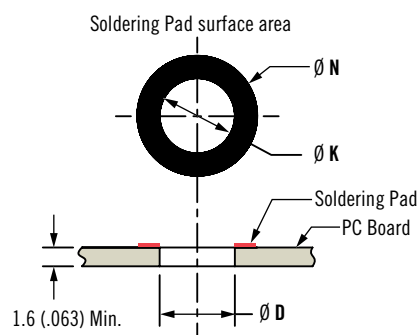
### Knob Height and Screw Projection



\* Value represents float in unfastened position

Notes: P-1, P-2 Screw Projection measured from the top side of panel

### PC Board Preparation



### 47 Captive Screws Styled knob series - SMT Style

#### Part Number

Specify Package

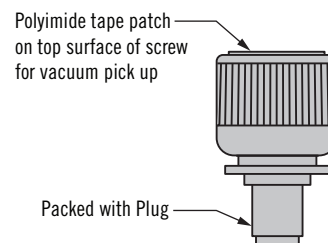
Indicate package option with last digit of the part number

#### Example

47-SM-1311-K-R: Reel Package (as shown in table)

47-SM-1311-K-T: Tray Package

### Screw as Shipped in Reel Pack or Tray Pack



| Thread Size | Part Number (Reel package shown) |                 |                    |                 | H-1  | H-2  | P-1       | P-2       | øB   | øJ    | øE   | F*   | ø K  | ø N  | Panel Preparation                   |
|-------------|----------------------------------|-----------------|--------------------|-----------------|------|------|-----------|-----------|------|-------|------|------|------|------|-------------------------------------|
|             | Knurled Head                     |                 | Smooth Head        |                 |      |      |           |           |      |       |      |      |      |      | ø D                                 |
|             | Phillips / Slotted               | TORX® / Slotted | Phillips / Slotted | TORX® / Slotted |      |      |           |           |      |       |      |      |      |      |                                     |
| M3 x 0.5    | 47-SM-3311-K-R                   | 47-SM-3411-K-R  | 47-SM-3311-N-R     | 47-SM-3411-N-R  | 11.4 | 8.4  | 1.4 (.05) | 4.4 (.17) | 10.7 | 5.5   | 7.6  | 0.7  | 5.6  | 8.6  | 5.6 +0.08/-0<br>(.220 +.003/-0.000) |
|             | 47-SM-3321-K-R                   | 47-SM-3421-K-R  | 47-SM-3321-N-R     | 47-SM-3421-N-R  |      |      | 2.2 (.09) | 5.2 (.20) |      |       |      |      |      |      |                                     |
| 4-40        | 47-SM-1311-K-R                   | 47-SM-1411-K-R  | 47-SM-1311-N-R     | 47-SM-1411-N-R  | (45) | (33) | 1.4 (.05) | 4.4 (.17) | (42) | (217) | (30) | (03) | (22) | (34) |                                     |
|             | 47-SM-1321-K-R                   | 47-SM-1421-K-R  | 47-SM-1321-N-R     | 47-SM-1421-N-R  |      |      | 2.2 (.09) | 5.2 (.20) |      |       |      |      |      |      |                                     |
| 6-32        | 47-SM-2311-K-R                   | 47-SM-2411-K-R  | 47-SM-2311-N-R     | 47-SM-2411-N-R  | 15.5 | 10.7 | 0.8 (.03) | 5.6 (.22) | 11.4 | 6.2   | 8.1  | 0.7  | 6.4  | 10.2 | 6.4 +0.08/-0<br>(.252 +.003/-0.000) |
|             | 47-SM-2321-K-R                   | 47-SM-2421-K-R  | 47-SM-2321-N-R     | 47-SM-2421-N-R  |      |      | (61)      | (42)      |      |       |      |      |      |      |                                     |

Other options available. For complete details on variety, part numbers, installation and specification, go to



[www.southco.com/47](http://www.southco.com/47)

TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC

Dimensions in millimeters (inch) unless otherwise stated

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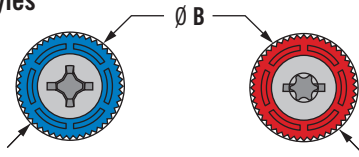
# 4C-SM Captive Screws

Prism series · Surface Mount Technology (SMT) Style



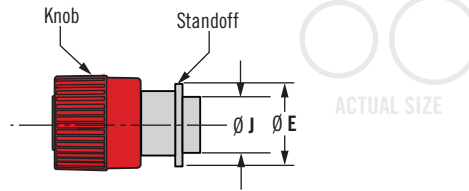
471

## Recess Styles

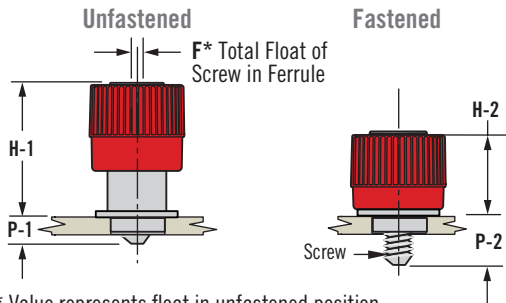


No. 2 Phillips Recess (M3,4-40)  
No. 2 Phillips / Slot Recess (6-32)

T10 TORX® / Slot Combination (M3,4-40)  
T15 TORX® / Slot Combination (6-32)



## Knob Height and Screw Projection



\* Value represents float in unfastened position  
Notes: P-1, P-2 Screw Projection measured from the top side of panel



## 4C Captive Screws

Prism series - SMT Style

### Part Number

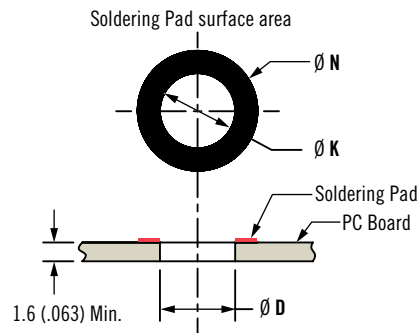
Specify Package

Indicate package option with last digit of the part number

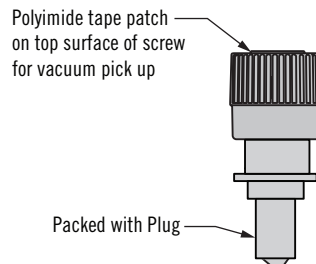
### Example

4C-SM-1111-N000-R, Reel Package (as shown in table)  
4C-SM-1111-N000-T, Tray Package

## PC Board Preparation



## Screw as Shipped in Reel Pack or Tray Pack



### Part Number

Specify Color

To indicate Color, change the three digits of the part number indicated below

### Example

4C-SM-1111-K000-R, black  
4C-SM-1111-K008-R, blue

- For installation to PC Board material utilizing surface mount technology
- Designate access points with color
- Color match captive screws to your industrial design
- High strength screw for use with high torque drivers

## Material and Finish

Standoff: Steel, Tin plated

Knob: High heat resistant plastic

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

Internal spring: 300 series stainless steel passivated

Plug: Silicone rubber

## Installation Notes

Visit [www.southco.com](http://www.southco.com) for additional installation guidelines

To ensure you receive

 **SOUTHCO®** quality parts, look for the segmented circle

## Part Number

See table

| Thread Size | Part Number (Reel package shown) |                   |                    |                   | H-1           | H-2           | P-1        | P-2       | ø B           | ø J           | ø E          | F*           | ø K          | ø N           | Panel Preparation                    |
|-------------|----------------------------------|-------------------|--------------------|-------------------|---------------|---------------|------------|-----------|---------------|---------------|--------------|--------------|--------------|---------------|--------------------------------------|
|             | Knurled Head                     |                   | Smooth Head        |                   |               |               |            |           |               |               |              |              |              |               | ø D                                  |
|             | Phillips                         | TORX® / Slotted   | Phillips           | TORX® / Slotted   |               |               |            |           |               |               |              |              |              |               |                                      |
| M3 x 0.5    | 4C-SM-3111-K000-R                | 4C-SM-3411-K000-R | 4C-SM-3111-K000-R  | 4C-SM-3411-N000-R | 10.8<br>(.43) | 8.6<br>(.34)  | 1.5 (.06)  | 3.7 (.15) | 9.7<br>(.38)  | 5.5<br>(.217) | 7.6<br>(.30) | 0.7<br>(.03) | 5.6<br>(.22) | 8.6<br>(.34)  | 5.6 + 0.08/-0<br>(.220 +.003/- .000) |
|             | 4C-SM-3121-K000-R                | 4C-SM-3421-K000-R | 4C-SM-3121-K000-R  | 4C-SM-3421-N000-R |               |               | 3.3 (.13)  | 5.5 (.22) |               |               |              |              |              |               |                                      |
| 4-40        | 4C-SM-1111-K000-R                | 4C-SM-1411-K000-R | 4C-SM-1411-N000-R  | 4C-SM-1411-N000-R |               |               | 1.5 (.06)  | 3.7 (.15) |               |               |              |              |              |               |                                      |
|             | 4C-SM-1121-K000-R                | 4C-SM-1421-K000-R | 4C-SM-1421-N000-R  | 4C-SM-1421-N000-R |               |               | 3.3 (.13)  | 5.5 (.22) |               |               |              |              |              |               |                                      |
|             | Phillips / Slotted               | TORX®/Slotted     | Phillips / Slotted | TORX®/Slotted     |               |               |            |           |               |               |              |              |              |               |                                      |
| 6-32        | 4C-SM-2311-K000-R                | 4C-SM-2411-K000-R | 4C-SM-2311-N000-R  | 4C-SM-2411-N000-R | 16.3<br>(.64) | 11.7<br>(.46) | 0.1 (.004) | 4.6 (.18) | 11.4<br>(.45) | 6.2<br>(.244) | 8.1<br>(.32) | 0.8<br>(.03) | 6.4<br>(.25) | 10.2<br>(.40) | 6.4 + 0.08/-0<br>(.252 +.003/- .000) |
|             | 4C-SM-2321-K000-R                | 4C-SM-2421-K000-R | 4C-SM-2321-N000-R  | 4C-SM-2421-N000-R |               |               | 1.8 (.07)  | 6.1 (.24) |               |               |              |              |              |               |                                      |



# 47/4C Captive Screws

## ATCA captive screws

- M3 thread
- No. 2 Phillips recess
- Color match available

### Material and Finish

Screw, ferrule and internal spring stainless steel, knob aluminum or PC/ABS

### Performance Details

Flammability rating: UL94-V0  
ATCA R3.0 compliant screw

### Installation Notes

Please refer to installation drawings on [www.southco.com](http://www.southco.com) for reference on dimensions **B\***, **Ø D\*** and **Ø Z\***

**F\*** indicates maximum float in the unfastened position

### Part Number

See table

Specifying Color:

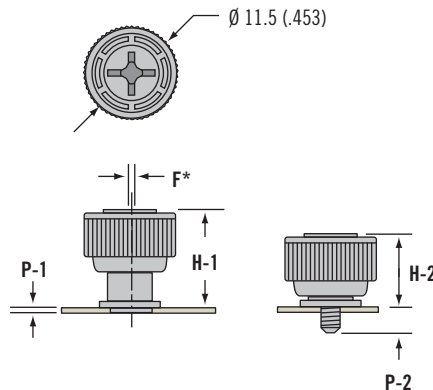
To indicate color, change the last three digits of the part number.

Example:

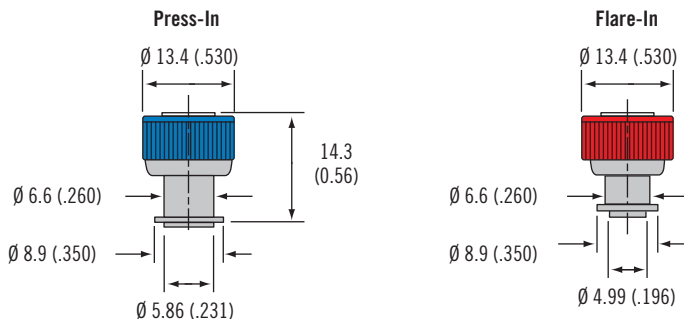
47-99-945-1P0-K000, black

47-99-945-1P0-K013, red

### Metal Version



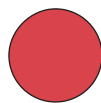
### Overmolded Version



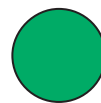
000 Black



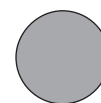
008 Blue



013 Red



014 Green



Your color  
(contact Southco)

| Series                                 | Installation Method | Panel Thickness |               |               | Part Number<br>No. 2 Phillips | H-1           | H-2           | P-1           | P-2          | F*          | Panel Preparation                                                           |                                                                                   |
|----------------------------------------|---------------------|-----------------|---------------|---------------|-------------------------------|---------------|---------------|---------------|--------------|-------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                        |                     | A Min.          | A Max.        | B*            |                               |               |               |               |              |             | Ø D*                                                                        | Ø Z*                                                                              |
| ATCA compliant<br>(Metal Version)      | Press-in            | 0.9<br>(.036)   | ~             | ~             | 47-99-945-1P0                 | 14.3<br>(.56) | 10.1<br>(.40) | 1.0<br>(.39)  | 5.0<br>(.20) | 1<br>(.039) | 5.95 ± 0.04<br>(.234 ± .002)                                                | 3.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.125 <sup>+0.008</sup> <sub>-.004</sub> ) |
|                                        | Flare-in            | 0.8<br>(.031)   | 1.5<br>(.060) | 0.4<br>(.016) | 47-99-944-1F1                 | 14.3<br>(.56) | 10.1<br>(.40) | 1.0<br>(.39)  | 5.0<br>(.20) | 1<br>(.039) | 5.1 <sup>+0.1</sup> <sub>-0</sub><br>(.20 <sup>+0.004</sup> <sub>-0</sub> ) | 3.0 <sup>+0.1</sup> <sub>-0</sub><br>(.118 <sup>+0.004</sup> <sub>-.000</sub> )   |
| ATCA compliant<br>(Overmolded Version) | Press-in            | 0.9<br>(.036)   | ~             | ~             | 47-99-945-1P0-K000            | 14.3<br>(.56) | 10.1<br>(.40) | 1.0<br>(.39)  | 5.0<br>(.20) | 1<br>(.039) | 5.95 ± 0.04<br>(.234 ± .002)                                                | 3.2 <sup>+0.2</sup> <sub>-0.1</sub><br>(.125 <sup>+0.008</sup> <sub>-.004</sub> ) |
|                                        | Flare-in            | 0.8<br>(.031)   | 1.5<br>(.060) | 0.4<br>(.016) | 47-99-944-1F1-K000            | 14.3<br>(.56) | 10.1<br>(.40) | 1.0<br>(.039) | 5.0<br>(.20) | 1<br>(.039) | 5.1 <sup>+0.1</sup> <sub>-0</sub><br>(.20 <sup>+0.004</sup> <sub>-0</sub> ) | 3.0 <sup>+0.1</sup> <sub>-0</sub><br>(.118 <sup>+0.004</sup> <sub>-.000</sub> )   |



[www.southco.com/P7](http://www.southco.com/P7)

Dimensions in millimeters (inch) unless otherwise stated

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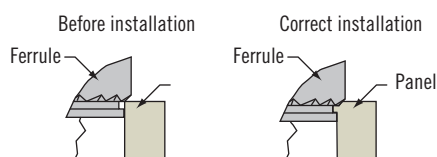
# Installation Guidelines

## for *SOUTHCO*® Self-Clinching products

Self-clinching product installation is offered on these *SOUTHCO*® products, making them easy-to-use captive panel fasteners:

- Captive Screws
- Receptacles for Quarter-turn Fasteners
- Receptacles for Fast-lead Thread Screws

When pressed into a properly prepared hole, self-clinching captive fasteners cold-flow (move) the panel material into the retaining groove of the fastener. This material then retains the fastener in the panel.



### Successful press-in installations depend on:

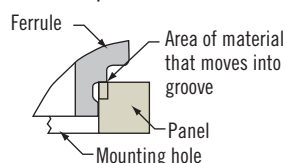
#### Material:

The hardness of the panel material must not exceed *SOUTHCO*® recommendations. If the panel is too hard, the fastener will not install correctly.

#### Installation Holes:

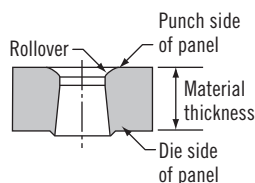
Mounting holes may be drilled, punched, or cast.

- Hole edge: the top hole edge must be sharp but with no broken edges.



Do not chamfer or debur edge.

- Punched holes: use a punch and die with a small clearance to minimize the rollover and fracture angle.
- Hole diameter: measure the hole diameter at the panel surface on the side on which the fastener will be installed. The diameter must be within *SOUTHCO*® specifications for that product.



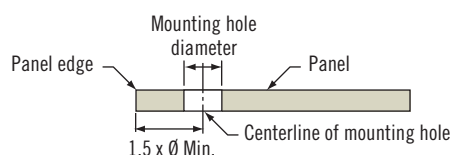
- If the hole is too large, not enough material will flow into the

retaining groove and the fastener may not be retained adequately.

- If the hole is too small, the fastener will not fit and installation may become difficult and unsafe.
- Hole distance from the edge of panel: the minimum recommended distance is 1.5 x the diameter of the mounting hole, unless otherwise indicated.

- Spring-loaded Plungers
- Captive Nuts
- Threaded Inserts

- Installing too close to the edge will cause the material to flow in the opposite direction, deforming the edge of the panel. To install closer to the edge, you may need to restrain the panel edge.



#### Panel Thickness:

The thickness of the panel at the mounting hole location must meet or exceed Southco's stated minimum recommendations.

If the material is too thin, panel deformation and/or damage to the fastener may result.

### Installation is fast and easy if you follow these tips:

How to install: Use the recommended force where noted and a proper back-up tool.

- use any parallel-acting press
- use a punch whose diameter is larger than the head of the fastener

Installation Force: Proper installation requires an even distribution of adequate force. It does not depend on the distance the fastener is pressed into the panel.

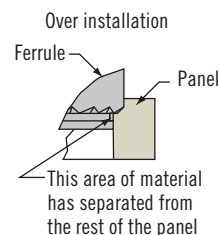
- Southco does not recommend using a hammer. The impact force does not provide an even distribution of force to allow the panel material to completely flow into the fastener's retaining groove.
- Installation force varies from application to application, depending on the criteria noted above.
- On parts without a collar to provide a hard stop, press-in until the edge of the knurl is just barely visible.

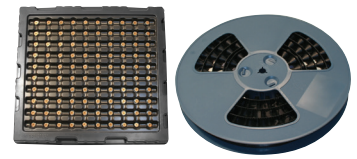
#### When to Install:

Installation is recommended after plating or finishing has been applied to the panel.

The hole diameter must meet specifications before finish or plating is applied.

- Do not over-install parts. This interrupts the material and will reduce the retention strength.





Southco Surface Mounted Technology (SMT) Captive Screws include installation and packaging features for installation onto PC Boards during the Reflow Process as a surface mounted device (SMD).

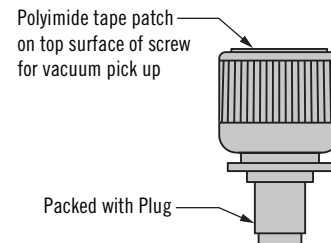
**SMT product installation is offered on these Southco Captive Screws for 4-40, 6-32 and M3 thread sizes:**

- 47 Styled Knob Series
- 4C Prism Series
- 52 Miniature Series

## Installation Features

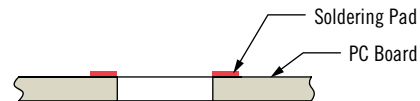
Each Southco SMT style captive screw includes a polyimide patch covering the screw head tool recess allowing for vacuum pick up during placement on the PC Board. The screw threads are protected from excess solder during the reflow process by a plug pre-assembled to the screw by Southco. The patch and plug are then removed after the final cool down phase.

Screw as Shipped in Reel or Tray Pack



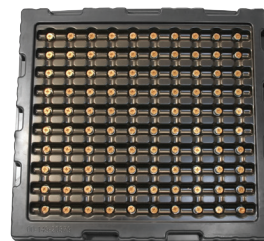
## Preparing the PC Board to accept SMT Captive Screws

- See literature for optimum soldering pad surface area for the specific Southco Captive Screw being utilized



## Packaging Features/Options

- Tray Pack
- Reel Pack



Tray Pack



Reel Pack

## Reflow Process

- Reflow of Solder
  - Pre-heat
  - Soak
  - Reflow
  - Cooling
- Cleaning
  - Remove excess solder paste