

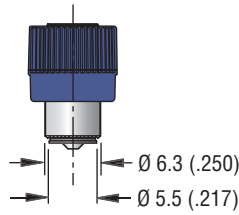
- Designate access points with color
- Color match captive screws to your industrial design
- High strength screw for use with high torque drivers

To ensure you receive Southco quality parts, look for the segmented circle.

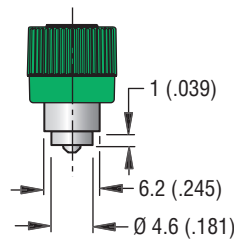
## Prism Series, M3 and 4-40

### Installation Styles

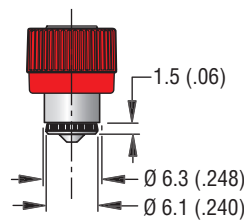
#### Press-in



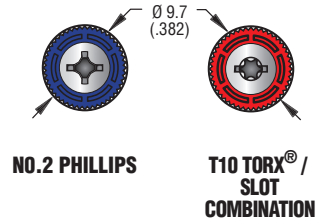
#### Flare-in



#### P.C. Board

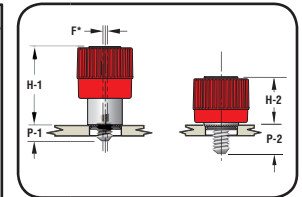


### Recess Styles



## M3 Thread Size

INSTALLATION STYLE	PANEL THICKNESS			PART NUMBERS		P-1	P-2	H-1	H-2	F*	PANEL PREPARATION	
	A MIN.	A MAX.	B	PHILLIPS	TORX® / SLOTTED						Ø D	Ø Z
Press-in Style	0.9 (.036)†	-	-	4C-PH-M3-1P0-K000	4C-TS-M3-1P0-K000	0.8 (.03)	3.8 (.15)	11.5 (.45)	8.5 (.33)	0.7 (.03)	5.6 ±0.04 (.219 +.003 -0.000)	3.2 +0.2 -0.1 (.125 +.008 -0.004)
				4C-PH-M3-2P0-K000	4C-TS-M3-2P0-K000	2.5 (.10)	5.5 (.22)					
Flare-in Style	0.8 (.031)	1.5 (.060)	0.4 (.016)	4C-PH-M3-1F1-K000	4C-TS-M3-1F1-K000	0.8 (.03)	3.7 (.15)	11.5 (.45)	8.6 (.34)	0.7 (.03)	4.8 +0.08 -0.05 (.187 +.005 -0.000)	3.0 +0.2 -0.1 (.118 +.008 -0.004)
				4C-PH-M3-2F1-K000	4C-TS-M3-2F1-K000	2.5 (.10)	5.4 (.21)					
P.C. Board Style	1.6 (.063)	-	-	4C-PH-M3-1B0-K000	4C-TS-M3-1B0-K000	1.5 (.06)	3.8 (.15)	10.9 (.43)	8.5 (.33)	0.7 (.03)	5.6 +0.1 -0.05 (.220 +.004 -0.002)	3.2 +0.2 -0.1 (.125 +.008 -0.004)



ATCA compliant parts

## 4-40 Thread Size

INSTALLATION STYLE	PANEL THICKNESS			PART NUMBERS		P-1	P-2	H-1	H-2	F*	PANEL PREPARATION	
	A MIN.	A MAX.	B	PHILLIPS	TORX® / SLOTTED						Ø D	Ø Z
Press-in Style	0.9 (.036)†	-	-	4C-PH-04-1P0-K000	4C-TS-04-1P0-K000	0.8 (.03)	3.8 (.15)	11.5 (.45)	8.5 (.33)	0.7 (.03)	5.6 ±0.04 (.219 +.003 -0.000)	3.2 +0.2 -0.1 (.125 +.008 -0.004)
				4C-PH-04-2P0-K000	4C-TS-04-2P0-K000	2.5 (.10)	5.5 (.22)					
Flare-in Style	0.8 (.031)	1.5 (.060)	0.4 (.016)	4C-PH-04-1F1-K000	4C-TS-04-1F1-K000	0.8 (.03)	3.7 (.15)	11.5 (.45)	8.6 (.34)	0.7 (.03)	4.8 +0.08 -0.05 (.187 +.005 -0.000)	3.0 +0.2 -0.1 (.118 +.008 -0.004)
				4C-PH-04-2F1-K000	4C-TS-04-2F1-K000	2.5 (.10)	5.4 (.21)					
P.C. Board Style	1.6 (.063)	-	-	4C-PH-04-1B0-K000	4C-TS-04-1B0-K000	1.5 (.06)	3.8 (.15)	10.9 (.43)	8.5 (.33)	0.7 (.03)	5.6 +0.1 -0.05 (.220 +.004 -0.002)	3.2 +0.2 -0.1 (.125 +.008 -0.004)
				4C-PH-04-2B0-K000	4C-TS-04-2B0-K000	3.3 (.13)	5.5 (.22)					

NOTES: \* F indicates maximum float in the unfastened position.  
† For panels thinner than 0.9mm, contact Southco.

millimeter (inch)

millimeter (inch)

Dimensions without tolerances are for reference only.

## Specifying Color

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

Example:

4C-PS-06-1P0-K000, black

4C-PS-06-1P0-K013, red

(shown in table)



000 Black



008 Blue



012 Purple



013 Red



014 Green



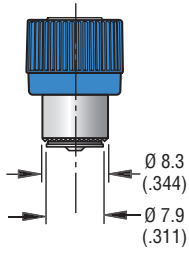
Your Color Contact Southco

## Prism Series, M4

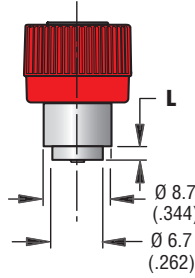
### Installation Styles

### Recess Styles

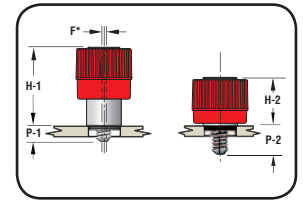
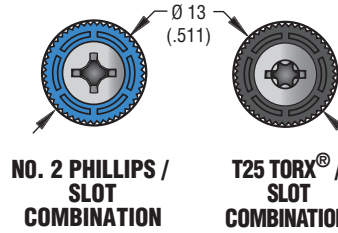
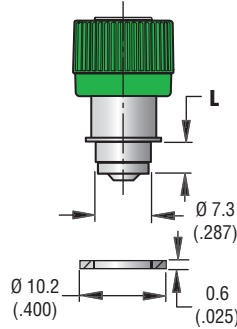
#### Press-in



#### Flare-in



#### Floating



### M4 Thread Size

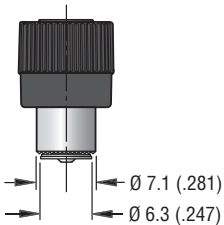
INSTALLATION STYLE	PANEL THICKNESS			L	PART NUMBERS		P-1	P-2	H-1	H-2	F*	PANEL PREPARATION	
	A MIN.	A MAX.	B		PHILLIPS / SLOTTED	TORX® / SLOTTED						Ø D	Ø Z
Press-in Style	0.9 (.036)†	-	-	-	4C-PS-M4-1P0-K000	4C-TS-M4-1P0-K000	0.5 (.02)	5.6 (.22)	16.3 (.64)	11.3 (.45)	0.7 (.03)	8 <sup>+0</sup> <sub>-0.08</sub>	4.4 <sup>+0.2</sup> <sub>-0.1</sub>
					4C-PS-M4-2P0-K000	4C-TS-M4-2P0-K000	2 (.08)	7.1 (.28)				(.315 <sup>+0</sup> <sub>-.003</sub> )	(.173 <sup>+0.008</sup> <sub>-.004</sub> )
Flare-in Style	1.5 (.060)	3.2 (.126)	0.4 (.016)	1.8 (.070)	4C-PS-M4-1F1-K000	4C-TS-M4-1F1-K000	0.6 (.02)	5.6 (.22)	16.1 (.64)	11.3 (.45)	0.6 (.02)	6.8 <sup>+0.08</sup> <sub>-0.04</sub>	4.2 <sup>+0.05</sup> <sub>-0.0</sub>
					4C-PS-M4-2F1-K000	4C-TS-M4-2F1-K000	2.1 (.08)	7.1 (.28)				(.266 <sup>+0.05</sup> <sub>-.000</sub> )	(.165 <sup>+0.002</sup> <sub>-.000</sub> )
Floating Style	0.8 (.031)	1.6 (.063)	3.1 (.122)	4.0 (.158)	4C-PS-M4-3T2-K000	4C-TS-M4-3T2-K000	3.8 (.15)	8.8 (.35)	16.2 (.64)	11.2 (.44)	2.3 (.09)	8.8 <sup>+0.08</sup> <sub>-0.03</sub>	-
					4C-PS-M4-4T2-K000	4C-TS-M4-4T2-K000	5.4 (.21)	10.4 (.41)					
	1.6 (.063)	2.4 (.094)	3.9 (.153)	4.8 (.190)	4C-PS-M4-3T3-K000	4C-TS-M4-3T3-K000	3.8 (.15)	8.8 (.35)					
					4C-PS-M4-4T3-K000	4C-TS-M4-4T3-K000	5.4 (.21)	10.4 (.41)					

## Prism Series, 6-32

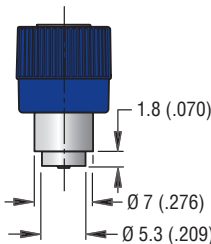
### Installation Styles

### Recess Styles

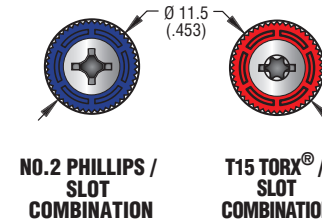
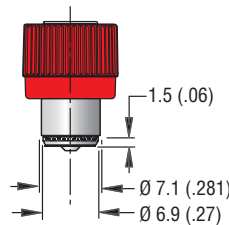
#### Press-in



#### Flare-in



#### P.C. Board



### 6-32 Thread Size

INSTALLATION STYLE	PANEL THICKNESS			L	PART NUMBERS		P-1	P-2	H-1	H-2	F*	PANEL PREPARATION	
	A MIN.	A MAX.	B		PHILLIPS / SLOTTED	TORX® / SLOTTED						Ø D	Ø Z
Press-in Style	0.9 (.036)†	-	-	-	4C-PS-06-1P0-K000	4C-TS-06-1P0-K000	0.7 (.03)	5 (.20)	15.5 (.61)	11.3 (.44)	0.7 (.03)	6.4 <sup>+0.03</sup> <sub>-0.05</sub>	3.7 <sup>+0.2</sup> <sub>-0.1</sub>
					4C-PS-06-2P0-K000	4C-TS-06-2P0-K000	2.3 (.09)	6.6 (.26)				(.250 <sup>+0.03</sup> <sub>-.000</sub> )	(.146 <sup>+0.008</sup> <sub>-.004</sub> )
Flare-in Style	1.5 (.059)	3.2 (.126)	0.4 (.016)	1.8 (.070)	4C-PS-06-1F1-K000	4C-TS-06-1F1-K000	0.8 (.03)	5 (.20)	15.7 (.61)	11.3 (.44)	0.7 (.03)	5.4 <sup>+0.1</sup> <sub>-0</sub>	3.7 <sup>+0.2</sup> <sub>-0.1</sub>
					4C-PS-06-2F1-K000	4C-TS-06-2F1-K000	2.3 (.09)	6.6 (.26)				(.213 <sup>+0.05</sup> <sub>-.000</sub> )	(.141 <sup>+0.008</sup> <sub>-.004</sub> )
P.C. Board Style	1.6 (.063)	-	-	-	4C-PS-06-1B0-K000	4C-TS-06-1B0-K000	1.7 (.07)	6.2 (.25)	14.5 (.57)	10 (.39)	0.7 (.03)	6.4 <sup>+0.1</sup> <sub>-0.1</sub>	3.7 <sup>+0.2</sup> <sub>-0.1</sub>

millimeter (inch)

millimeter

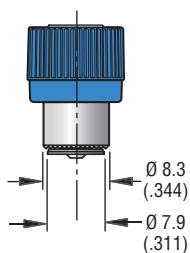
(inch)

Dimensions without tolerances are for reference only.

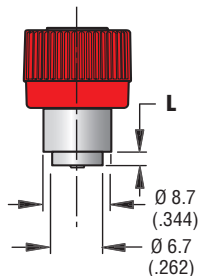
## Prism Series, 10-32 and M5

### Installation Styles

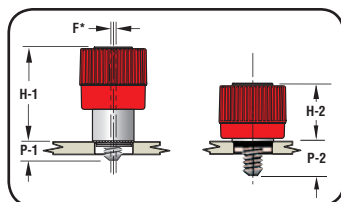
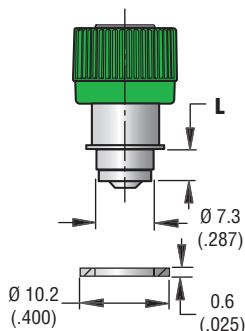
#### Press-in



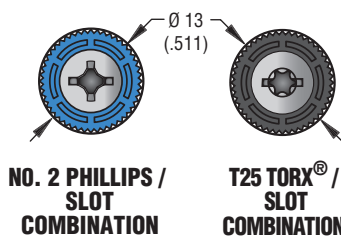
#### Flare-in



#### Floating



### Recess Styles



To ensure you receive Southco quality parts, look for the segmented circle.

### Specifying Color

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

Example:  
4C-PS-06-1P0-K000, black  
4C-PS-06-1P0-K013, red



000  
Black



008  
Blue



012  
Purple



013  
Red



014  
Green



Your Color  
Contact Southco

### 10-32 Thread Size

INSTALLATION STYLE	PANEL THICKNESS				PART NUMBERS		P-1	P-2	H-1	H-2	F*	PANEL PREPARATION	
	A MIN.	A MAX.	B	L	PHILLIPS / SLOTTED	TORX® / SLOTTED						ØD	ØZ
Press-in Style	0.9 (.036)†	-	-	-	4C-PS-10-1P0-K000	4C-TS-10-1P0-K000	0.5 (.02)	5.6 (.22)	16.2 (.64)	11.3 (.45)	0.6 (.02)	8 <sup>+0</sup> <sub>-0.08</sub>	5.2 <sup>+0.2</sup> <sub>-0.1</sub>
					4C-PS-10-2P0-K000	4C-TS-10-2P0-K000	2 (.08)	7.1 (.28)				8.8 <sup>+0</sup> <sub>-0.03</sub>	5.2 <sup>+0.08</sup> <sub>-0.04</sub>
Flare-in Style	1.5 (.059)	3.2 (.126)	0.4 (.016)	1.8 (.070)	4C-PS-10-1F1-K000	4C-TS-10-1F1-K000	0.8 (.03)	5.6 (.22)	16.1 (.64)	11.3 (.45)	0.6 (.02)	6.8 <sup>+0.08</sup> <sub>-0.04</sub>	4.9 <sup>+0.05</sup> <sub>-0.0</sub>
					4C-PS-10-2F1-K000	4C-TS-10-2F1-K000	2.3 (.09)	7.1 (.28)				6.8 <sup>+0.08</sup> <sub>-0.00</sub>	4.9 <sup>+0.02</sup> <sub>-0.00</sub>
Floating Style	0.8 (.031)	1.6 (.063)	3.1 (.122)	4.0 (.158)	4C-PS-10-3T2-K000	4C-TS-10-3T2-K000	3.8 (.15)	8.8 (.35)	16.2 (.64)	11.2 (.44)	2.3 (.09)	8.8 <sup>+0.08</sup> <sub>-0.03</sub>	-
					4C-PS-10-4T2-K000	4C-TS-10-4T2-K000	5.4 (.21)	10.4 (.41)					
	1.6 (.063)	2.4 (.094)	3.9 (.153)	4.8 (.190)	4C-PS-10-3T3-K000	4C-TS-10-3T3-K000	3.8 (.15)	8.8 (.35)	16.2 (.64)	11.2 (.44)	2.3 (.09)	8.8 <sup>+0.08</sup> <sub>-0.01</sub>	-
					4C-PS-10-4T3-K000	4C-TS-10-4T3-K000	5.4 (.21)	10.4 (.41)					

### M5 Thread Size

INSTALLATION STYLE	PANEL THICKNESS				PART NUMBERS		P-1	P-2	H-1	H-2	F*	PANEL PREPARATION	
	A MIN.	A MAX.	B	L	PHILLIPS / SLOTTED	TORX® / SLOTTED						ØD	ØZ
Press-in Style	0.9 (.036)†	-	-	-	4C-PS-M5-1P0-K000	4C-TS-M5-1P0-K000	0.8 (.03)	5.5 (.22)	16.2 (.64)	11.3 (.45)	0.6 (.02)	8 <sup>+0</sup> <sub>-0.08</sub>	5.2 <sup>+0.2</sup> <sub>-0.1</sub>
					4C-PS-M5-2P0-K000	4C-TS-M5-2P0-K000	2.4 (.09)	7.1 (.28)				8.8 <sup>+0</sup> <sub>-0.03</sub>	5.2 <sup>+0.08</sup> <sub>-0.04</sub>
Flare-in Style	1.5 (.059)	3.2 (.126)	0.4 (.016)	1.8 (.070)	4C-PS-M5-1F1-K000	4C-TS-M5-1F1-K000	0.7 (.03)	5.6 (.22)	16 (.63)	11.3 (.45)	0.6 (.02)	6.8 <sup>+0.08</sup> <sub>-0.04</sub>	4.9 <sup>+0.05</sup> <sub>-0.0</sub>
					4C-PS-M5-2F1-K000	4C-TS-M5-2F1-K000	2.4 (.09)	7.2 (.28)				6.8 <sup>+0.08</sup> <sub>-0.00</sub>	4.9 <sup>+0.02</sup> <sub>-0.00</sub>
Floating Style	0.8 (.031)	1.6 (.063)	3.1 (.122)	4.0 (.158)	4C-PS-M5-3T1-K000	4C-TS-M5-3T1-K000	4.0 (.16)	8.9 (.35)	16 (.63)	11.2 (.44)	2.3 (.09)	8.8 <sup>+0.08</sup> <sub>-0.03</sub>	-
					4C-PS-M5-4T1-K000	4C-TS-M5-4T1-K000	5.6 (.22)	10.6 (.42)				8.8 <sup>+0.08</sup> <sub>-0.01</sub>	

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

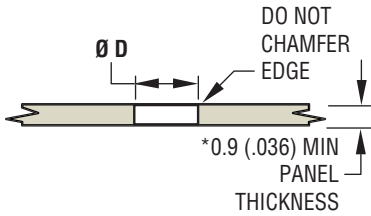
† For panels thinner than 0.9mm contact Southco.

millimeter (inch)  
millimeter  
(inch)

Dimensions without tolerances are for reference only.

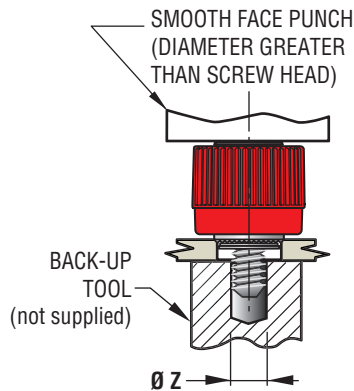
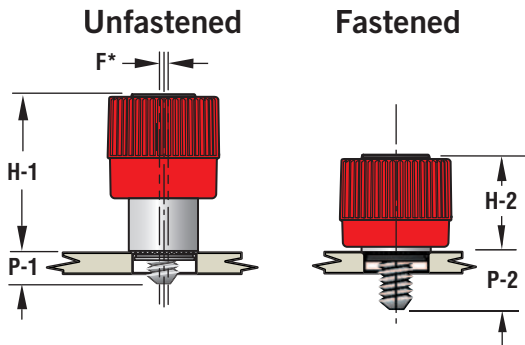
## Panel Preparation and Installation

### Press-in



1. Prepare panel as shown, do not chamfer edge.
2. Place standoff into installation hole.
3. Provide solid back-up behind hole with clearance hole for screw.
4. Press part into panel. Punch must not touch plastic knob during installation.

NOTE: Recommended minimum distance from the panel edge to the centerline of the installation hole is  $1.5 \times \text{Ø D}$ . \* For panels thinner than 0.9mm contact Southco.



### Material and Finish

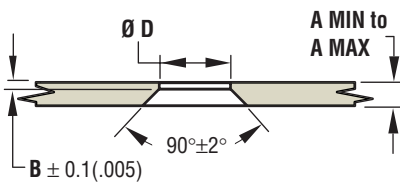
KNOB: PC/ABS  
 SCREW: Hardened carbon steel, zinc plate, chromate plus sealer  
 SPRING: 300 series stainless steel, passivated  
 STANDOFF: Carbon steel, zinc plate, chromate plus sealer

NOTE: Maximum panel hardness 170 HV (85 HRB)

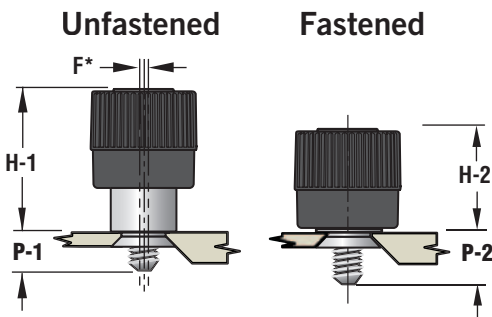
Flammability Rating: UL94 -V0

Torx® is a registered trademark of the Camcar Division of Textron Inc.

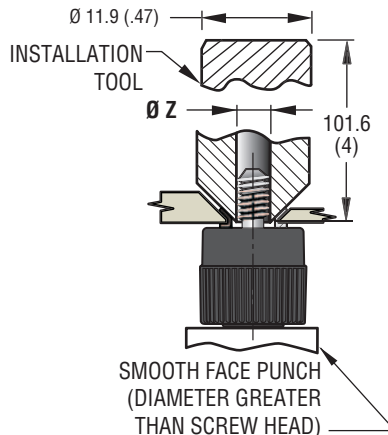
### Flare-in



1. Prepare panel as shown.
2. Use **light pressure** to flare standoff, assuring parallel surfaces on the punch and installation tool. Installation force depends on screw size.
3. Punch cannot touch plastic during installation.



\* F indicates maximum float in the unfastened position, see table for values



### Material and Finish

KNOB: PC/ABS  
 SCREW: Hardened carbon steel, zinc plate, chromate plus sealer  
 SPRING: 300 series stainless steel, passivated  
 STANDOFF: Aluminum, natural

Flammability Rating: UL94 -V0

For Thread Size	Tool Part Number
M3 or 4-40	47-104
6-32	47-106
M4	47-108
M5 or 10-32	47-110

### Material and Finish

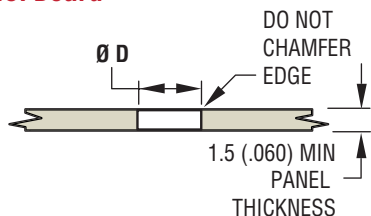
INSTALLATION TOOL: Steel, hardened, zinc plated plus bright chromate dip.

millimeter (inch)  
 millimeter  
 (inch)

Dimensions without tolerances are for reference only.

## Panel Preparation and Installation

### P.C. Board



1. Prepare panel as shown. Outside edge of hole must be sharp.
2. Press the assembly into your panel, assuring parallel surfaces on the punch and back-up tool.
3. Punch must not touch plastic knob during installation.



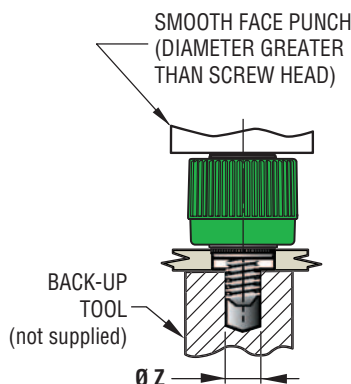
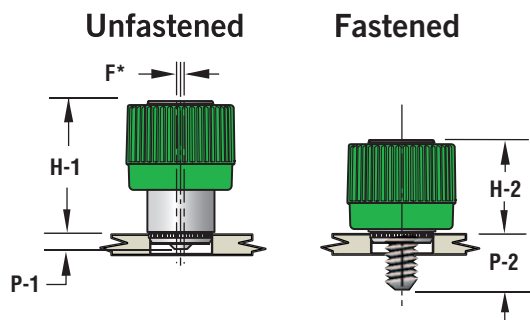
### Material and Finish

**KNOB:** PC/ABS  
**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer  
**SPRING:** 300 series stainless steel, passivated  
**STANDOFF:** Stainless steel, passivated

### Flammability Rating: UL94 -V0

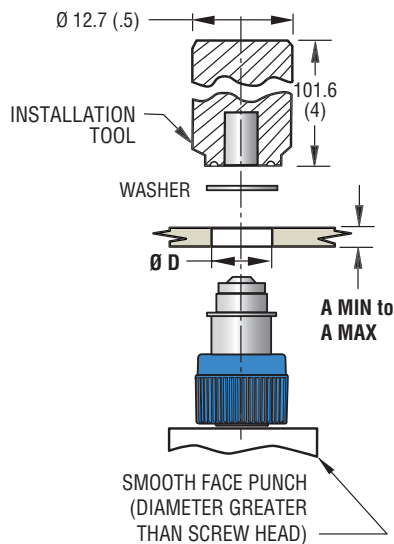
millimeter (inch)  
 millimeter (inch)

Dimensions without tolerances are for reference only.

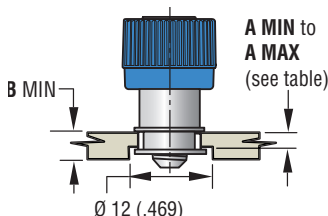


### Floating

**Panel Preparation I - Requires space between panels.**



**Panel Preparation II - Provides a flush panel-to-panel condition when fastened.**



1. Choose panel preparation I or II and complete.
2. Center the tool on the screw thread, then roll the ferrule over the washer to captivate the assembly. (Caution excessive force will damage the screw assembly.)
3. Punch must not touch plastic knob during installation.
4. For panel preparation II, you must have a panel thickness of at least "B MIN." To achieve flush panel to panel condition, counterbore panel to leave a remaining thickness between "A MIN" and "A MAX."

### Material and Finish

**KNOB:** PC/ABS  
**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer  
**SPRING and WASHER:** 300 series stainless steel, passivated  
**STANDOFF:** Aluminum, natural

### Flammability Rating: UL94 -V0

A Floating assembly consists of one screw sub assembly and one washer, packaged separately.

For Thread Size	Tool Part Number
M4	47-08
M5 or 10-32	47-05

### Material and Finish

**INSTALLATION TOOL:** Steel, hardened, zinc plated plus bright chromate dip.



\* F indicates maximum float in the unfastened position, see table for values.

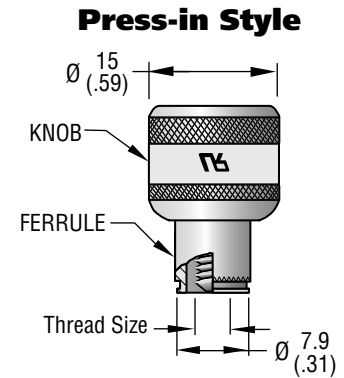
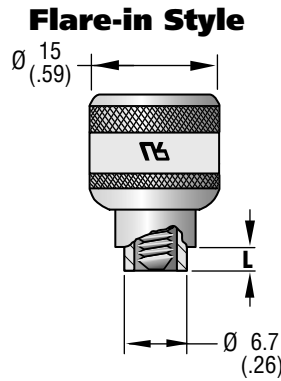
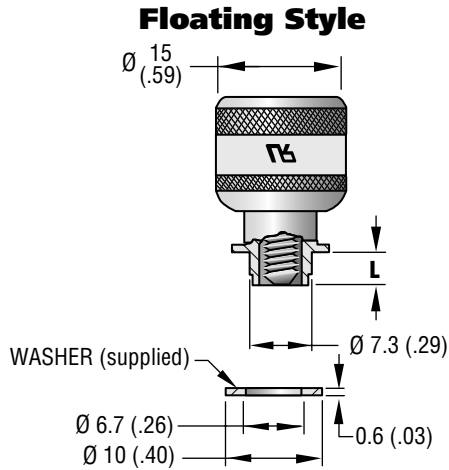
# Southco® Captive Fasteners

## Restricted Access Series, M4 and M5

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



## Installation Styles



## M4 Thread Size

INSTALLATION STYLE	KNOB HEIGHT		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-In Style	18.5 (.73)	14 (.54)	0.9 (.036)	—	—
Flare-In Style	18 (.70)	13 (.51)	1.5 (.058)	3.2 (.125)	0.6 (.023)
			3.2 (.125)	4.8 (.188)	1.6 (.062)
Floating Style	18 (.70)	14 (.54)	0.1 (.001)	0.8 (.031)	2.3 (.09)
			0.8 (.031)	1.6 (.063)	3.1 (.12)

## M5 Thread Size

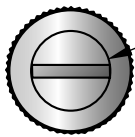
Press-In Style	18.5 (.73)	14 (.54)	0.9 (.036)	—	—
Flare-In Style	18 (.70)	13 (.51)	1.5 (.058)	3.2 (.125)	0.6 (.023)
			3.2 (.125)	4.8 (.188)	1.6 (.062)
Floating Style	18 (.70)	15 (.54)	0.1 (.001)	0.8 (.031)	2.3 (.09)
			0.8 (.031)	1.6 (.063)	3.1 (.12)
			1.6 (.063)	2.4 (.094)	3.9 (.15)

### To find the right screw fastener:

1. Determine which thread size you need and go to that table.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B**
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. Screw end will project below outer panel if P1 is greater than outer panel thickness.
5. Select the driver recess and finish.

Part Numbers in shaded blocks are fully retracting.

## Recess Styles



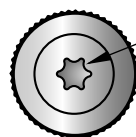
SLOT DIMENSIONS:  
Width 1.1 (.05)  
Depth 1.2 (.05)  
Length 8.4 (.33)

**SLOTTED**



No. 2  
PHILLIPS  
RECESS

**PHILLIPS**



TORX® T25  
RECESS

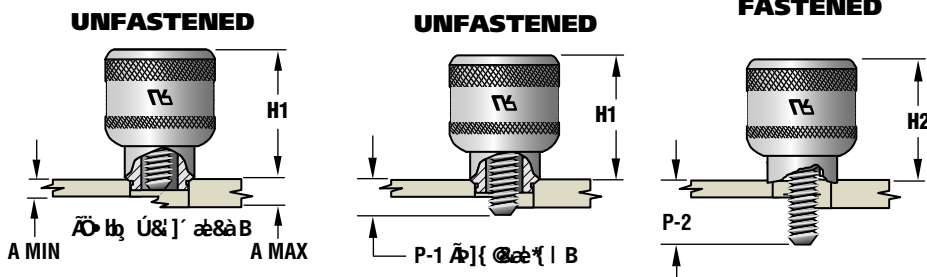
**TORX® RECESS**

TORX® is a registered trademark of the Camcar Division of Textron Inc.



## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER		
	P-1	P-2	Slotted Recess	Phillips Recess	TORX® Recess
—	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
1.8 (.07)	1.4 (.06)	6.2 (.24)	47-80-302-22	47-80-322-22 •	47-80-342-22
3.4 (.14)	3.1 (.12)	7.9 (.31)	47-80-304-22	47-80-324-22 •	47-80-344-22
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
3.2 (.13)	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
4 (.16)	2.4 (.09)	7.2 (.28)	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
	5.4 (.21)	10.2 (.40)	47-82-311-22	47-82-331-22	47-82-351-22

—	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
1.8 (.07)	1.4 (.06)	6.2 (.24)	47-80-502-22	47-80-522-22 •	47-80-542-22
3.4 (.14)	3.1 (.12)	7.9 (.31)	47-80-504-22	47-80-524-22 •	47-80-544-22
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
3.4 (.14)	4.1 (.16)	8.9 (.35)	47-81-504-22	47-81-524-22	47-81-544-22
	6.1 (.24)	10.9 (.43)	47-82-504-22	47-82-524-22	47-82-544-22
3.2 (.13)	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
4 (.16)	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
	5.4 (.21)	10.4 (.40)	47-82-511-22	47-82-531-22	47-82-551-22
4.8 (.19)	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

## Material and Finish

### FERRULE:

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

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black organic coating.

### SCREW:

Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black organic coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

### RACHET MECHANISM:

Hardened steel, black oxide plus oil.

An assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: Knob and screw head available with black finish, change the 8th digit of your part number from "2" to "6".  
Example: 47-60-201-22 to 47-60-201-62

## Installation for All Styles

*\*For panel preparation and installation instructions, see page 216.*

millimeter (inch)  
millimeter  
(inch)

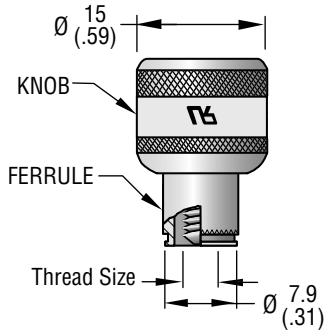
Dimensions without tolerances are for reference only.

# Southco® Captive Fasteners

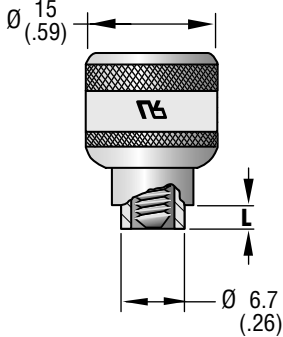
Restricted Access Series, 6-32, 8-32 and 10-32

## Installation Styles

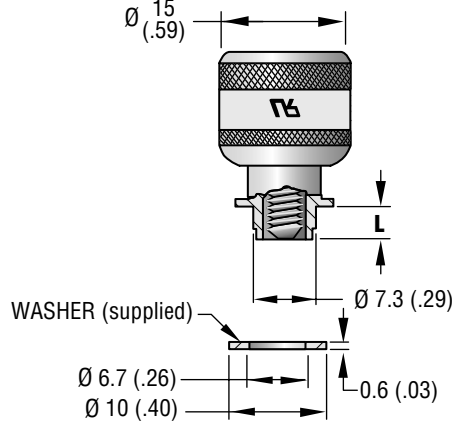
### Press-in Style



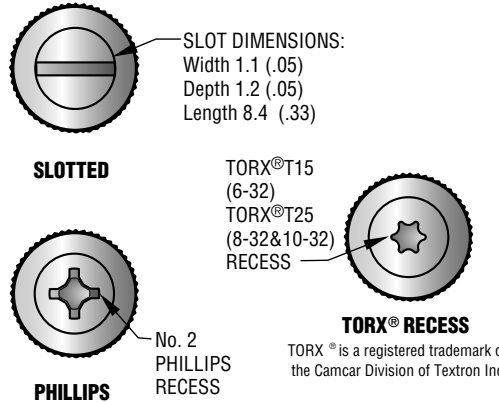
### Flare-in Style



### Floating Style



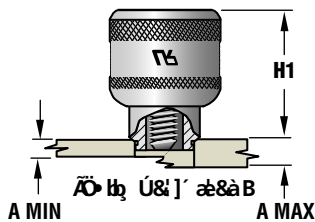
### Recess Styles



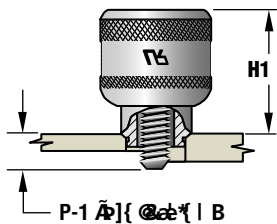
### Knob Height and Screw Projection

(Press-in Style Shown)

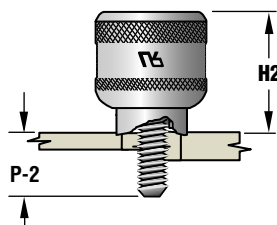
#### UNFASTENED



#### UNFASTENED



#### FASTENED



## 6-32 Thread Size

INSTALLATION STYLE	KNOB HEIGHT		OUTER PANEL DIMENSIONS*	
	H-1	H-2	A MIN	A MAX
Press-In Style	18.5 (.73)	14 (.54)	0.9 (.036)	—
Flare-In Style	18 (.70)	13 (.51)	1.5 (.058)	3.2 (.125)
			3.2 (.125)	4.8 (.188)
			1.5 (.058)	3.2 (.125)
			3.2 (.125)	4.8 (.188)
Floating Style	18 (.70)	14 (.54)	0.1 (.001)	0.8 (.031)
			0.8 (.031)	1.6 (.063)
			1.6 (.063)	2.4 (.094)
			1.6 (.063)	2.4 (.094)

## 8-32 Thread Size

Press-In Style	18.5 (.73)	14 (.54)	0.9 (.036)	—
Flare-In Style	18 (.70)	13 (.51)	1.5 (.058)	3.2 (.125)
			3.2 (.125)	4.7 (.188)
			1.5 (.058)	3.2 (.125)
			3.2 (.125)	4.8 (.188)
Floating Style	18 (.70)	14 (.54)	0.1 (.001)	0.8 (.031)
			0.8 (.031)	1.6 (.063)
			1.6 (.063)	2.4 (.094)
			1.6 (.063)	2.4 (.094)

## 10-32 Thread Size

Press-In Style	18.5 (.73)	14 (.54)	0.9 (.036)	—
Flare-In Style	18 (.70)	13 (.51)	1.5 (.058)	3.2 (.125)
			3.2 (.125)	4.8 (.188)
			1.5 (.058)	3.2 (.125)
			3.2 (.125)	4.8 (.188)
Floating Style	18 (.70)	14 (.54)	0.1 (.001)	0.8 (.031)
			0.8 (.031)	1.6 (.063)
			1.6 (.063)	2.4 (.094)
			1.6 (.063)	2.4 (.094)

### To find the right screw fastener:

1. Determine which thread size you need and go to that table.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for A MIN, A MAX, and B
4. Determine the appropriate P-2 screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. Screw end will project below outer panel if P1 is greater than outer panel thickness.
5. Select the driver recess and finish.

Part Numbers in shaded blocks are fully retracting.



TORX® is a registered trademark of the Camcar Division of Textron Inc.

DIMENSION B*	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER		
		P-1	P-2	Slotted Recess	Phillips Recess	TORX® Recess
—	—	0.7 (.03)	5.6 (.22)	47-60-201-22 •	47-60-221-22 •	47-60-241-22 •
		2.3 (.09)	7.2 (.28)	47-61-201-22 •	47-61-221-22 •	47-61-241-22 •
		3.8 (.15)	8.7 (.34)	47-62-201-22	47-62-221-22	47-62-241-22
		5.4 (.21)	10.3 (.41)	47-63-201-22	47-63-221-22	47-63-241-22
0.6 (.023)	1.8 (.07)	1.4 (.06)	6.2 (.24)	47-10-202-22 •	47-10-222-22 •	47-10-242-22
1.6 (.062)	3.4 (.14)	3.1 (.12)	7.9 (.31)	47-10-204-22	47-10-224-22	47-10-244-22
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
1.6 (.062)	3.4 (.14)	4.1 (.16)	8.9 (.35)	47-11-204-22	47-11-224-22	47-11-244-22
		6.1 (.24)	10.9 (.43)	47-12-204-22	47-12-224-22	47-12-244-22
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
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
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



## Material and Finish

### FERRULE:

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

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black organic coating.

### SCREW:

Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black organic coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

### RACHET MECHANISM:

Hardened steel, black oxide plus oil.

An assembly consists of one screw sub assembly and one washer, shipped separately.

—	—	0.7 (.03)	5.6 (.22)	47-60-301-22 •	47-60-321-22 •	47-60-341-22 •
		2.3 (.09)	7.2 (.28)	47-61-301-22 •	47-61-321-22 •	47-61-341-22 •
		3.8 (.15)	8.7 (.34)	47-62-301-22	47-62-321-22	47-62-341-22
		5.4 (.21)	10.3 (.41)	47-63-301-22	47-63-321-22	47-63-341-22
0.6 (.023)	1.8 (.07)	1.4 (.06)	6.2 (.24)	47-10-302-22 •	47-10-322-22 •	47-10-342-22
1.6 (.062)	3.4 (.14)	3.1 (.12)	7.9 (.31)	47-10-304-22	47-10-324-22	47-10-344-22
0.6 (.023)	1.8 (.07)	3.1 (.12)	7.9 (.31)	47-11-302-22 •	47-11-322-22 •	47-11-342-22
		4.1 (.16)	8.9 (.35)	47-12-302-22	47-12-322-22	47-12-342-22
		6.1 (.24)	10.9 (.43)	47-13-302-22	47-13-322-22	47-13-342-22
1.6 (.062)	3.4 (.14)	4.1 (.16)	8.9 (.35)	47-11-304-22	47-11-324-22	47-11-344-22
		6.1 (.24)	10.9 (.43)	47-12-304-22	47-12-324-22	47-12-344-22
2.3 (.09)	3.2 (.13)	2.4 (.09)	7.2 (.28)	47-10-310-22 •	47-10-330-22 •	47-10-350-22
		3.4 (.13)	8.2 (.32)	47-11-310-22	47-11-330-22	47-11-350-22
		5.4 (.21)	10.2 (.40)	47-12-310-22	47-12-330-22	47-12-350-22
3.1 (.12)	4 (.16)	2.4 (.09)	7.2 (.22)	47-10-311-22 •	47-10-331-22 •	47-10-351-22
		3.4 (.13)	8.2 (.32)	47-11-311-22	47-11-331-22	47-11-351-22
		5.4 (.21)	10.2 (.40)	47-12-311-22	47-12-331-22	47-12-351-22
3.9 (.15)	4.8 (.19)	3.4 (.13)	8.2 (.32)	47-10-312-22	47-10-332-22	47-10-352-22
		5.4 (.21)	10.2 (.40)	47-11-312-22	47-11-332-22	47-11-352-22

—	—	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
0.6 (.023)	1.8 (.07)	1.4 (.06)	6.2 (.24)	47-10-502-22	47-10-522-22 •	47-10-542-22
1.6 (.062)	3.4 (.14)	3.1 (.12)	7.9 (.31)	47-10-504-22	47-10-524-22 •	47-10-544-22
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
		6.1 (.24)	10.9 (.43)	47-13-502-22	47-13-522-22	47-13-542-22
1.6 (.062)	3.2 (.14)	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
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
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
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

NOTE: Knob and screw head available with black finish, change the 8th digit of your part number from "2" to "6".  
Example: 47-60-201-22 to 47-60-201-62

## Installation for All Styles

\*For panel preparation and installation instructions, see page 216.

millimeter (inch)  
millimeter  
(inch)

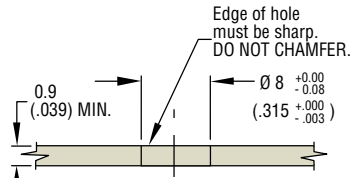
Dimensions without tolerances are for reference only.

# Southco® Captive Fasteners

## Restricted Access Series, Installation

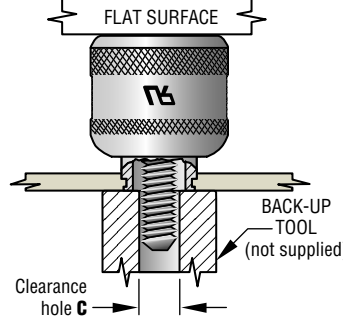
### Press-in Style

1. Prepare panel as shown. Top edge of hole should be sharp.



2. Place ferrule into installation hole.
3. Provide a solid back-up surface behind the panel with a clearance hole as shown for the screw.

4. Press the assembly into panel until only the top of the knurl on the ferrule is visible.



### Edge Distance

Recommended minimum distance from edge of panel to centerline of hole is 12 (.47).

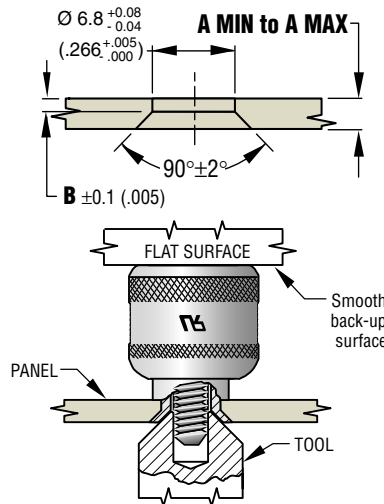
For use in low carbon steels, aluminum and stainless steels in the annealed condition that are R<sub>p</sub>85 or softer.

Thread Size	ØC (+0.2/+0.007/-0.1/-0.004)
6-32	3.7 (.146)
M4 or 8-32	4.4 (.173)
M5 or 10-32	5.2 (.205)

### Flare-in Style

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 lbs.) to 2500 N (550 lbs.)



For Thread Size	Tool PART NUMBER
6-32	47-106 •
M4 or 8-32	47-108 •
10-32	47-110 •
M5	47-115 •

millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

### Floating Style

**Panel Preparation I - Requires space between inner and outer panels.**

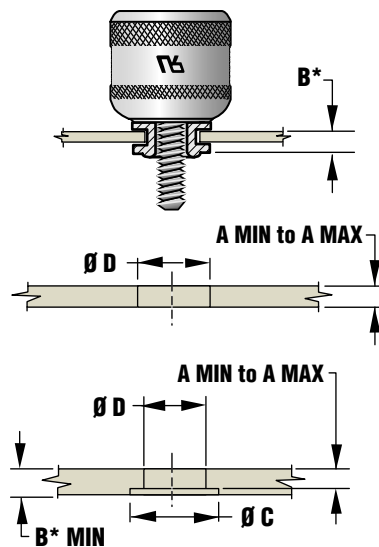
For outer panel thicknesses within the range of "A" as specified on the corresponding thread size page.

Space between panels must be at "B\*" minus your outer panel thickness.

**Panel Preparation II - Provides a flush panel-to-panel condition when fastened.**

For outer panel thicknesses at least "B\*", minimum" as specified on the corresponding thread size page.

Requires a counterbore with a depth which leaves a remaining thickness within the range of "A" as specified on the corresponding thread size page.

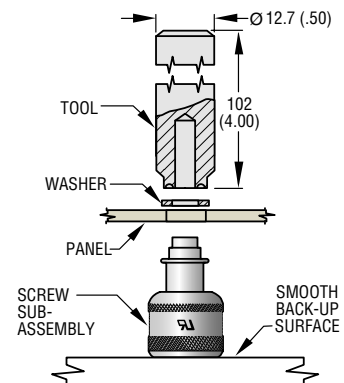


For Thread Size	ØD (+0.08/+0.003/-0.03/-0.001)	Counterbore MIN ØC
6-32	7.2 (.283)	10.5 (.413)
M4 or 8-32	8.8 (.346)	12 (.469)
M5 or 10-32	8.8 (.346)	12 (.469)

For Thread Size	Tool PART NUMBER
6-32	47-06 •
M4 or 8-32	47-08 •
M5	47-05 •
10-32	47-10 •

### Floating Style Installation

1. Place Southco® installation tool in a press capable of providing 890 N (200 lbs.) to 3115 N (700 lbs.) of force. Installation force depends on thread size.
  2. Center the tool on the screw thread, then roll the ferrule over the washer to captivate the assembly.
- (Caution: Excessive force will damage the screw assembly).



# Southco® Captive Fasteners

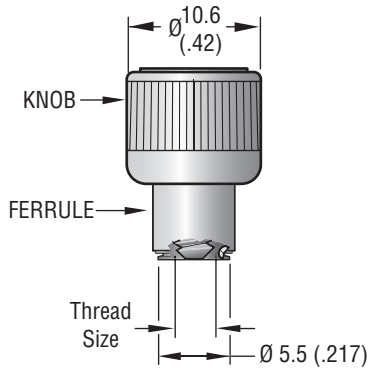
## Styled Knob Series, M3 Thread Size

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

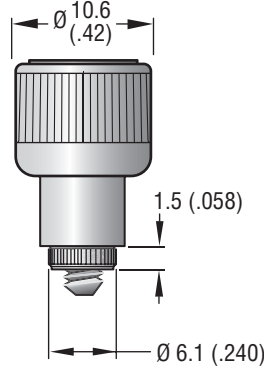
 To ensure you receive Southco® quality parts, look for the segmented circle.

### Installation Styles

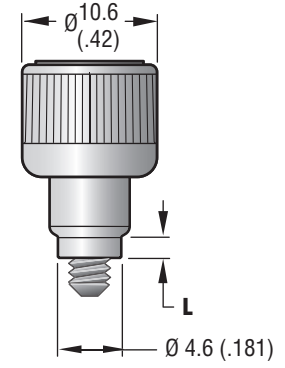
#### Press-in Style



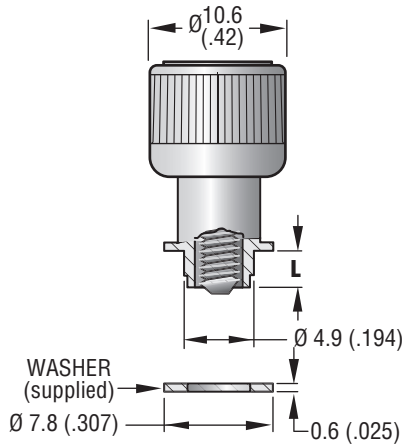
#### P.C. Board Style



#### Flare-in Style



#### Floating Style



### M3 Thread Size

INSTALLATION STYLE	KNOB HEIGHT		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	11.3 (.45)	8.3 (.33)	0.9 (.036)	—	—
P.C. Board Style	11.5 (.45)	8.3 (.33)	1.6 (.061)	—	—
Flare-in Style	11.3 (.45)	8.1 (.32)	0.8 (.031)	1.5 (.058)	0.4 (.015)
			1.5 (.059)	2.5 (.099)	0.4 (.015)
			2.5 (.100)	4 (.156)	0.8 (.031)
			4 (.157)	5.6 (.219)	2.4 (.093)
			5.6 (.220)	7.1 (.281)	4 (.156)
			0.8 (.031)	1.5 (.058)	0.4 (.015)
			1.5 (.059)	2.5 (.099)	0.4 (.015)
Floating Style	11.9 (.45)	8.7 (.34)	—	0.8 (.031)	2 (.080)
			0.8 (.031)	1.6 (.063)	2.8 (.111)
			1.6 (.063)	2.4 (.094)	3.6 (.143)

#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for A MIN, A MAX, and B\*.
4. Determine the appropriate P-2 screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the P-1 dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

Captive Fasteners  
Captive Screws

## Recess Styles



### Material and Finish

#### FERRULE:

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

Flare-in and Floating: Aluminum, natural.

P.C. Board Style: 300 Series stainless steel, passivated.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", "2" to "6" or "3" to "7".  
Example: 47-90-121-**64**

NOTE: For Screws with the smooth knob style, change the last digit of your part number "4" to "5" or "0" to "1".  
Example: 47-90-121-**65**

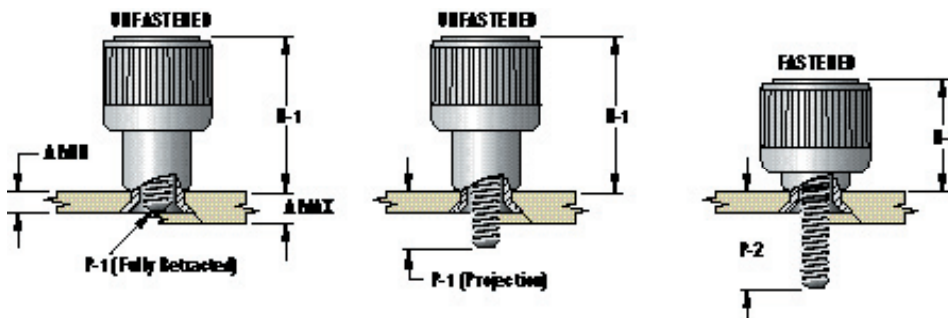
Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter  
(inch)

Dimensions without tolerances are for reference only.

## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER						
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination		
0.7 (.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		
0.7 (.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		
0.7 (.03)	1.0 (.041)	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	
		1.8 (.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	
		2.6 (.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	
	4.2 (.166)	1.0 (.041)	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
			5.8 (.299)	5.6 (.22)	8.8 (.35)	47-80-107-14	47-80-127-14	47-80-147-84	47-80-167-10	47-80-187-14
			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	
	1.8 (.070)	1.0 (.041)	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	
			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	
		1.8 (.070)	1.8 (.070)	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
2.0 (.08)	2.6 (.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		
		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 (.132)	3.4 (.132)	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	
			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	
	4.2 (.164)	4.2 (.164)	3.4 (.13)	6.6 (.26)	47-81-112-14	47-81-132-14	47-81-152-14	47-81-172-10	47-81-192-14	
			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	

## Installation for All Styles


\*For panel preparation and installation instructions, see pages 238 and 239.

# Southco® Captive Fasteners

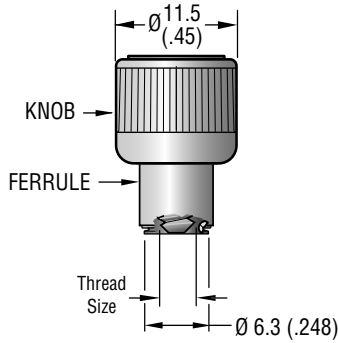
## Styled Knob Series, M3.5 Thread Size

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

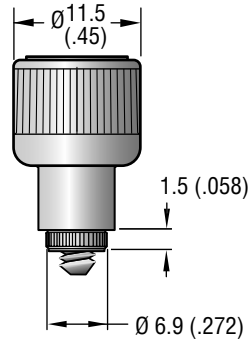
### Installation Styles

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

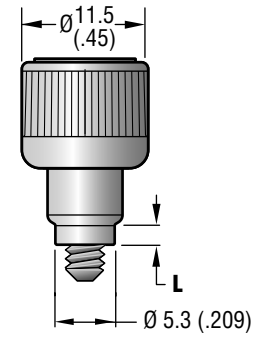
#### Press-in Style



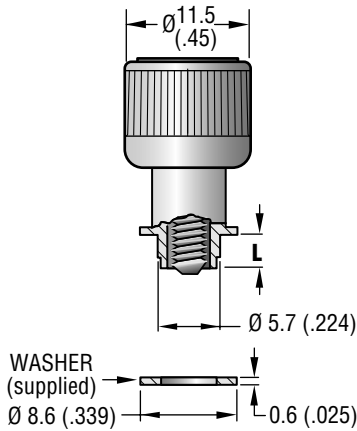
#### P.C. Board Style



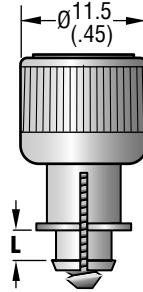
#### Flare-in Style



#### Floating Style



#### Snap-in Style



### M3.5 Thread Size

INSTALLATION STYLE	KNOB HEIGHT		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	15.9 (.63)	11.1 (.44)	0.9 (.036)	—	—
P.C. Board Style	14.8 (.58)	10 (.39)	1.6 (.061)	—	—
Flare-in Style	15.3 (.60)	10.4 (.41)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.125)	4.8 (.188)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.3 (.251)	7.9 (.312)	4.8 (.189)
Floating Style	15.4 (.60)	10.6 (.42)	1.5 (.059)	3.2 (.125)	0.4 (.016)
			3.2 (.125)	4.8 (.189)	1.6 (.062)
			4.7 (.188)	6.4 (.250)	2.8 (.11)
Snap-in Style	15.4 (.60)	10.6 (.42)	—	0.8 (.031)	2.1 (.084)
			0.8 (.031)	1.6 (.063)	2.9 (.115)
			1.6 (.063)	2.4 (.094)	3.7 (.147)
Snap-in Style	15.4 (.60)	10.6 (.42)	0.5 (.020)	1 (.039)	2 (.079)
			1 (.039)	1.6 (.063)	2.6 (.103)

### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

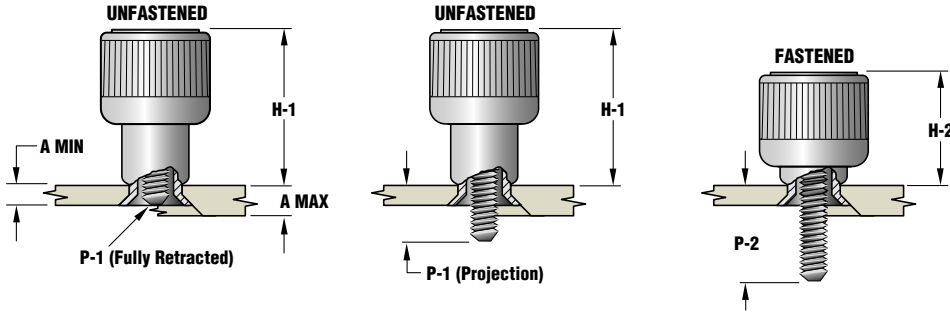
Part Numbers in shaded blocks are fully retracting.

## Recess Styles



### KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER				
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination
		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
	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	
0.8 (.03)	1.4 (.06)	6.1 (.24)	47-95-201-34	47-95-221-34	47-95-241-34	47-95-261-30	47-95-281-34	
0.8 (.03)	1.8 (.070)	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
	3.4 (.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
	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
	6.1 (.260)	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
	1.8 (.070)	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
		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
	3.4 (.135)	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
		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
		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
		4.6 (.18)	5.9 (.23)	10.8 (.43)	47-81-206-14	47-81-226-14	47-81-246-14	47-81-266-10
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
		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
	3.7 (.144)	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
		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
		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
		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
	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
		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
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
		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
		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
		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
	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
		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
		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

### Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.



### Material and Finish

#### FERRULE:

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

Flare-in and Floating: Aluminum, natural.

P.C. Board Style: 300 Series stainless steel, passivated.

Snap-in: 2000 Series aluminum, natural.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** Stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", "2" to "6" or "3" to "7".  
Example: 47-90-221-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number "4" to "5" or "0" to "1".  
Example: 47-90-221-65

Torx® is a registered trademark of the Camcar Division of Textron Inc.


millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

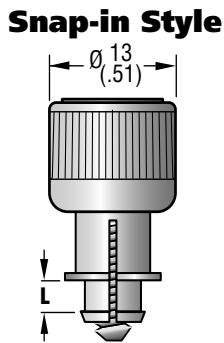
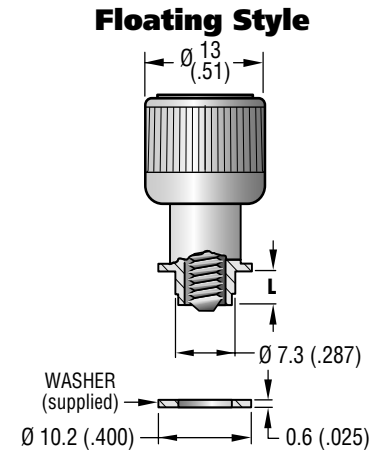
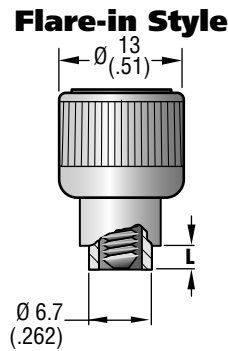
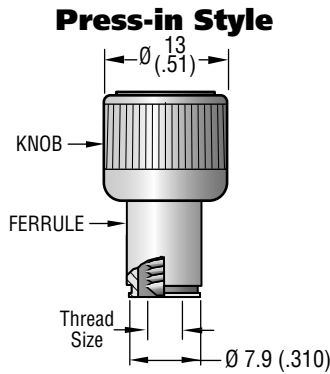
# Southco® Captive Fasteners

## Styled Knob Series, M4 Thread Size

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

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

### Installation Styles



### M4 Thread Size

INSTALLATION STYLE	KNOB HEIGHT†		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	16.2 (.64)	11 (.43)	0.9 (.036)	—	—
Flare-in Style	15.6 (.61)	10.5 (.41)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.7 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.3 (.251)	7.9 (.312)	4.8 (.187)
Floating Style	16 (.63)	11.2 (.44)	—	0.8 (.031)	2.3 (.090)
			0.8 (.031)	1.6 (.063)	3.1 (.121)
			1.6 (.063)	2.4 (.094)	3.9 (.153)
Snap-in Style	15.7 (.62)	11.2 (.44)	0.5 (.020)	1 (.039)	2 (.079)
			1 (.039)	1.6 (.063)	2.6 (.103)
			1.6 (.063)	2.5 (.098)	3.5 (.138)

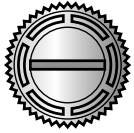
#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

## Recess Styles

SLOTTED



No. 2 PHILLIPS



T25 TORX®



T25 TORX® / SLOT COMBINATION



No. 2 PHILLIPS / SLOT COMBINATION



## Material and Finish

### FERRULE:

Press-in: Hardened carbon steel, zinc plate, chromate plus sealer.  
Flare-in and Floating: Aluminum, natural.  
Snap-in: 2000 Series aluminum, natural.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5" or "2" to "6".  
Example: 47-90-321-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".  
Example: 47-90-321-65

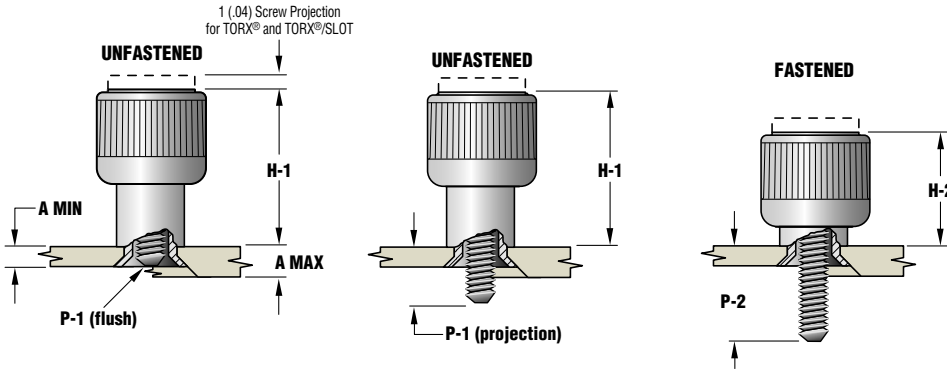
Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER						
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination		
		0.8 (.03)	0.7 (.03)	5.6 (.22)	47-90-301-24	47-90-321-24	47-90-341-20	47-90-361-20	47-90-381-20	
0.9 (.03)	1.8 (.070)	2.3 (.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		
		6.6 (.260)	11.1 (.44)	47-93-301-24	47-93-321-24	47-93-341-20	47-93-361-20	47-93-381-20		
	1.8 (.070)	2.9 (.11)	8 (.31)	47-81-302-14	47-81-322-14	47-81-342-10	47-81-362-10	47-81-382-10		
		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		
		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		
		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		
		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		
		5 (.197)	6 (.24)	11.1 (.44)	47-81-306-14	47-81-326-14	47-81-346-10	47-81-366-10	47-81-386-10	
		2.3 (.09)	3.2 (.127)	2.3 (.09)	7.3 (.29)	47-80-310-14	47-80-330-14	47-80-350-10	47-80-370-10	47-80-390-10
				3.8 (.15)	8.8 (.35)	47-81-310-14	47-81-330-14	47-81-350-10	47-81-370-10	47-81-390-10
5.4 (.21)	10.4 (.41)			47-82-310-14	47-82-330-14	47-82-350-10	47-82-370-10	47-82-390-10		
4 (.158)	2.3 (.09)		7.3 (.29)	47-80-311-14	47-80-331-14	47-80-351-10	47-80-371-10	47-80-391-10		
	3.8 (.15)		8.8 (.35)	47-81-311-14	47-81-331-14	47-81-351-10	47-81-371-10	47-81-391-10		
	5.4 (.21)		10.4 (.41)	47-82-311-14	47-82-331-14	47-82-351-10	47-82-371-10	47-82-391-10		
	3.8 (.15)		8.8 (.35)	47-80-312-14	47-80-332-14	47-80-352-10	47-80-372-10	47-80-392-10		
	5.4 (.21)		10.4 (.41)	47-81-312-14	47-81-332-14	47-81-352-10	47-81-372-10	47-81-392-10		
	4.8 (.190)		1.2 (.05)	5.7 (.22)	47-90-310-14	47-90-330-14	47-90-350-10	47-90-370-10	47-90-390-10	
			2.8 (.11)	7.3 (.29)	47-91-310-14	47-91-330-14	47-91-350-10	47-91-370-10	47-91-390-10	
4.3 (.17)		8.8 (.35)	47-92-310-14	47-92-330-14	47-92-350-10	47-92-370-10	47-92-390-10			
5.9 (.23)		10.4 (.41)	47-93-310-14	47-93-330-14	47-93-350-10	47-93-370-10	47-93-390-10			
2.8 (.11)		7.3 (.29)	47-90-312-14	47-90-332-14	47-90-352-10	47-90-372-10	47-90-392-10			
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			
0.9 (.03)	1.1 (.044)	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		
		2.8 (.11)	7.3 (.29)	47-90-314-14	47-90-334-14	47-90-354-10	47-90-374-10	47-90-394-10		
		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		
	1.7 (.068)	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		
		2.8 (.11)	7.3 (.29)	47-90-314-14	47-90-334-14	47-90-354-10	47-90-374-10	47-90-394-10		
		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		
		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		
		2.8 (.11)	7.3 (.29)	47-90-314-14	47-90-334-14	47-90-354-10	47-90-374-10	47-90-394-10		

## Installation for All Styles


\*For panel preparation and installation instructions, see pages 238 and 239.



# Southco® Captive Fasteners

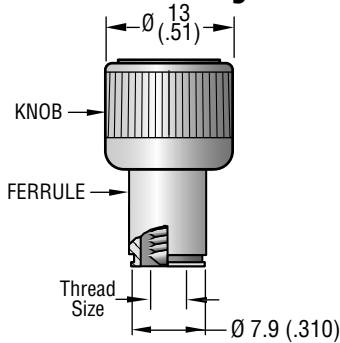
## Styled Knob Series, M5 Thread Size

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

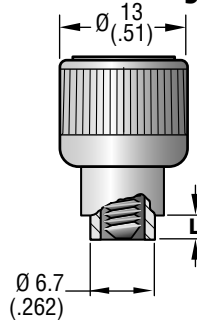
 To ensure you receive Southco® quality parts, look for the segmented circle.

### Installation Styles

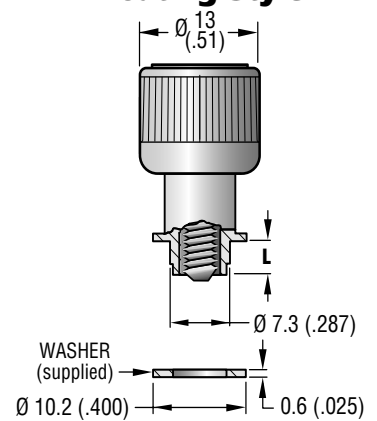
#### Press-in Style



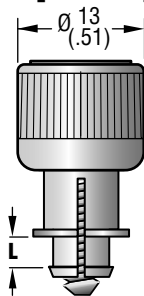
#### Flare-in Style



#### Floating Style



#### Snap-in Style



### M5 Thread Size

INSTALLATION STYLE	KNOB HEIGHT†		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	16.2 (.64)	11.3 (.44)	0.9 (.036)	—	—
Flare-in Style	15.6 (.61)	10.5 (.41)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.7 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.3 (.251)	7.9 (.312)	4.8 (.187)
			1.5 (.058)	3.2 (.125)	0.4 (.015)
Floating Style	16.2 (.64)	11.2 (.43)	—	0.8 (.031)	2.3 (.090)
			0.8 (.031)	1.6 (.063)	3.1 (.121)
			1.6 (.063)	2.4 (.094)	3.9 (.153)
Snap-in Style	15.7 (.62)	11.2 (.44)	0.5 (.020)	1 (.039)	2 (.079)
			1 (.039)	1.6 (.063)	2.6 (.103)
			1.6 (.063)	2.5 (.098)	3.5 (.138)

† Add 1 (.04) for Torx® and Torx®/Slot

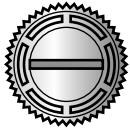
#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

## Recess Styles

SLOTTED



No. 2 PHILLIPS



T25 TORX®



T25 TORX® / SLOT COMBINATION

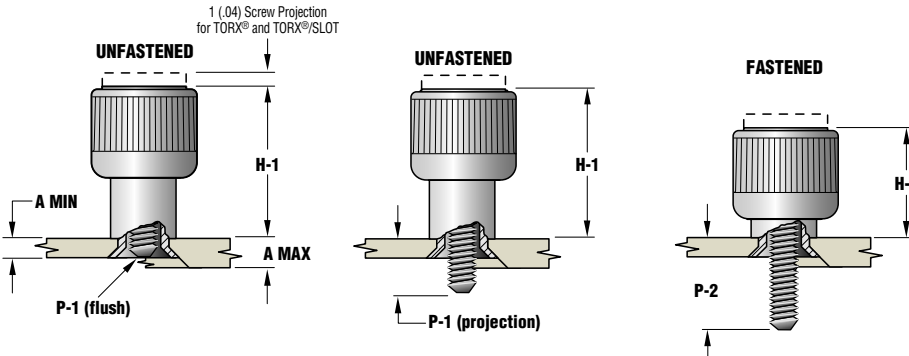


No. 2 PHILLIPS / SLOT COMBINATION



## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER				
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination
0.6 (.02)		0.6 (.02)	5.5 (.22)	47-90-501-24	47-90-521-24	47-90-541-20	47-90-561-20	47-90-581-20
		2.3 (.09)	7.2 (.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
0.6 (.02)	1.8 (.070)	1.3 (.05)	6.4 (.25)	47-80-502-14	47-80-522-14	47-80-542-10	47-80-562-10	47-80-582-10
		2.9 (.11)	8 (.31)	47-80-504-14	47-80-524-14	47-80-544-10	47-80-564-10	47-80-584-10
	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 (.24)	11.1 (.44)	47-80-508-14	47-80-528-14	47-80-548-10	47-80-568-10	47-80-588-10
	1.8 (.070)	2.9 (.11)	8 (.31)	47-81-502-14	47-81-522-14	47-81-542-10	47-81-562-10	47-81-582-10
		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
	3.4 (.135)	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
		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
2.2 (.09)	3.2 (.127)	2.3 (.09)	7.3 (.29)	47-80-510-14	47-80-530-14	47-80-550-10	47-80-570-10	47-80-590-10
		3.8 (.15)	8.8 (.35)	47-81-510-14	47-81-530-14	47-81-550-10	47-81-570-10	47-81-590-10
	4 (.158)	5.4 (.21)	10.4 (.41)	47-82-510-14	47-82-530-14	47-82-550-10	47-82-570-10	47-82-590-10
		2.3 (.09)	7.3 (.29)	47-80-511-14	47-80-531-14	47-80-551-10	47-80-571-10	47-80-591-10
	4.8 (.190)	3.8 (.15)	8.8 (.35)	47-81-511-14	47-81-531-14	47-81-551-10	47-81-571-10	47-81-591-10
		5.4 (.21)	10.4 (.41)	47-82-511-14	47-82-531-14	47-82-551-10	47-82-571-10	47-82-591-10
		3.8 (.15)	8.8 (.35)	47-80-512-14	47-80-532-14	47-80-552-10	47-80-572-10	47-80-592-10
		5.4 (.21)	10.4 (.41)	47-81-512-14	47-81-532-14	47-81-552-10	47-81-572-10	47-81-592-10
0.6 (.02)	1.1 (.044)	1.2 (.05)	5.7 (.22)	47-90-510-14	47-90-530-14	47-90-550-10	47-90-570-10	47-90-590-10
		2.8 (.11)	7.3 (.29)	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
	1.7 (.068)	2.8 (.11)	7.3 (.29)	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
		2.8 (.11)	7.3 (.29)	47-90-514-14	47-90-534-14	47-90-554-10	47-90-574-10	47-90-594-10
	2.6 (.103)	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

## Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.



## Material and Finish

### FERRULE:

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

Snap-in: 2000 Series aluminum, natural.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", or "2" to "6".  
Example: 47-90-521-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".  
Example: 47-90-521-65

Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

# Southco® Captive Fasteners

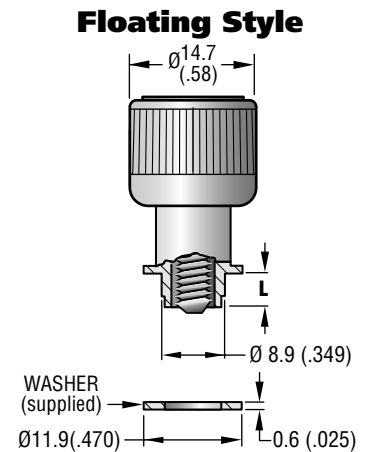
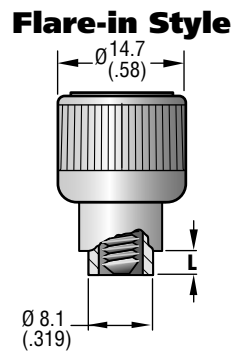
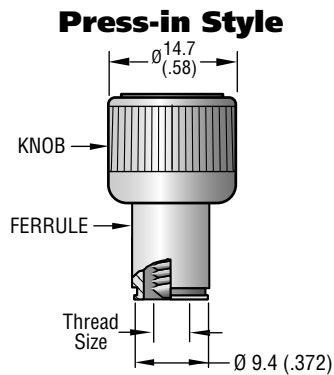
## Styled Knob Series, M6 Thread Size

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



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

### Installation Styles



Captive Fasteners  
Captive Screws

#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

### M6 Thread Size

INSTALLATION STYLE	KNOB HEIGHT†		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	20 (.79)	13.4 (.53)	0.9 (.036)	—	—
Flare-in Style	19.3 (.76)	12.7 (.50)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.8 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.4 (.251)	7.9 (.312)	4.8 (.187)
			1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.8 (.187)	1.6 (.062)
Floating Style	20 (.79)	13.3 (.52)	—	0.8 (.031)	2.5 (.097)
			0.8 (.031)	1.6 (.063)	3.3 (.128)
			1.6 (.063)	2.4 (.094)	4.1 (.160)

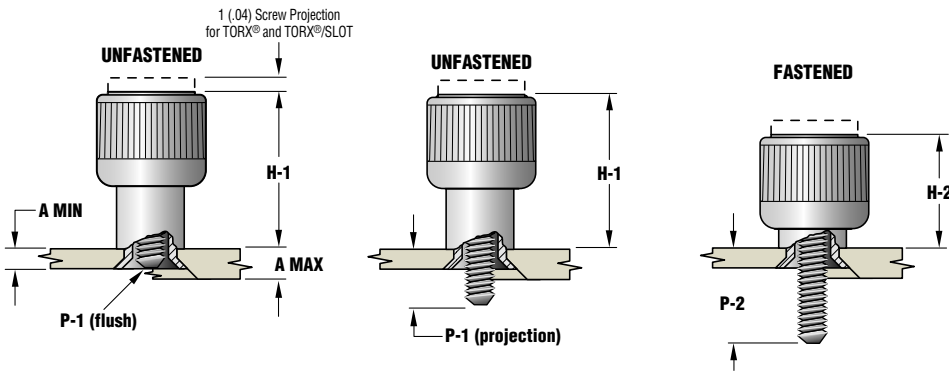
† Add 1 (.04) for Torx® and Torx®/Slot

## Recess Styles



### KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER				
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination
0.8 (.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
0.9 (.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
		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
	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
		6.6 (.260)	12.6 (.50)	47-80-608-14	47-80-628-14	47-80-648-10	47-80-668-10	47-80-688-10
	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
		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
	3.4 (.135)	4.4 (.17)	11 (.43)	47-82-604-14	47-82-624-14	47-82-644-10	47-82-664-10	47-82-684-10
		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
2.3 (.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
		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
	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
	4.8 (.190)	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

### Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.



### Material and Finish

#### FERRULE:

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

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", or "2" to "6".

Example: 47-90-621-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".

Example: 47-90-621-65

Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter  
(inch)

Dimensions without tolerances are for reference only.

# Southco® Captive Fasteners

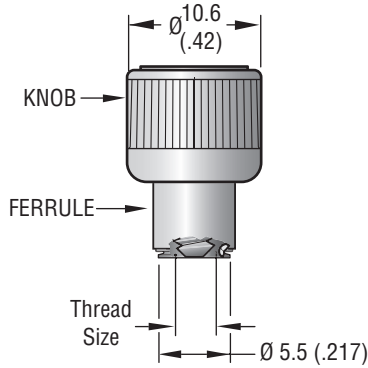
## Styled Knob Series, 4-40 Thread Size

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

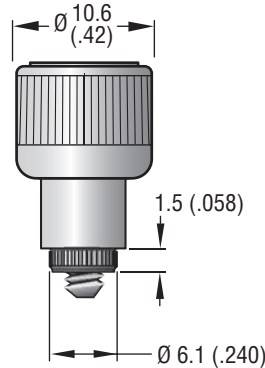
 To ensure you receive Southco® quality parts, look for the segmented circle.

### Installation Styles

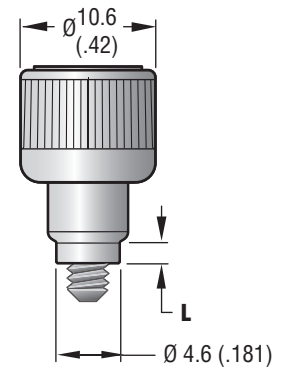
#### Press-in Style



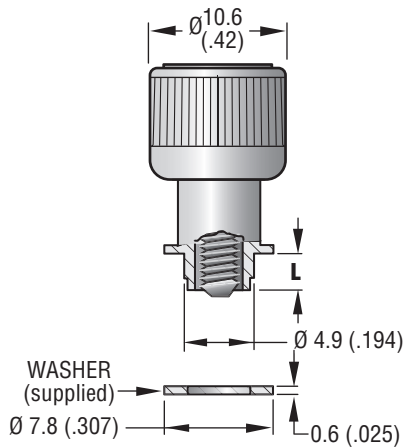
#### P.C. Board Style



#### Flare-in Style



#### Floating Style



### 4-40 Thread Size

INSTALLATION STYLE	KNOB HEIGHT		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
<b>Press-in Style</b>	11.3 (.45)	8.3 (.33)	0.9 (.036)	—	—
<b>P.C. Board Style</b>	11.5 (.45)	8.3 (.33)	1.6 (.061)	—	—
<b>Flare-in Style</b>	11.3 (.45)	8.1 (.32)	0.8 (.031)	1.5 (.058)	0.4 (.015)
			1.5 (.059)	2.5 (.099)	0.4 (.015)
			2.5 (.100)	4 (.156)	0.8 (.031)
			4 (.157)	5.6 (.219)	2.4 (.093)
			5.6 (.220)	7.1 (.281)	4 (.156)
<b>Floating Style</b>	11.9 (.45)	8.7 (.34)	—	0.8 (.031)	2 (.080)
			0.8 (.031)	1.6 (.063)	2.8 (.111)
			1.6 (.063)	2.4 (.094)	3.6 (.143)

#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

**Part Numbers in shaded blocks are fully retracting.**

Captive Fasteners  
Captive Screws

## Recess Styles

SLOTTED



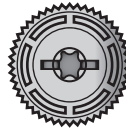
No. 1 PHILLIPS



T10 TORX®



T10 TORX® /  
SLOT COMBINATION



No. 1 PHILLIPS /  
SLOT COMBINATION



### Material and Finish

#### FERRULE:

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

P.C. Board Style: 300 Series stainless steel, passivated.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", "2" to "6" or "3" to "7".  
Example: 47-60-121-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".  
Example: 47-60-121-65

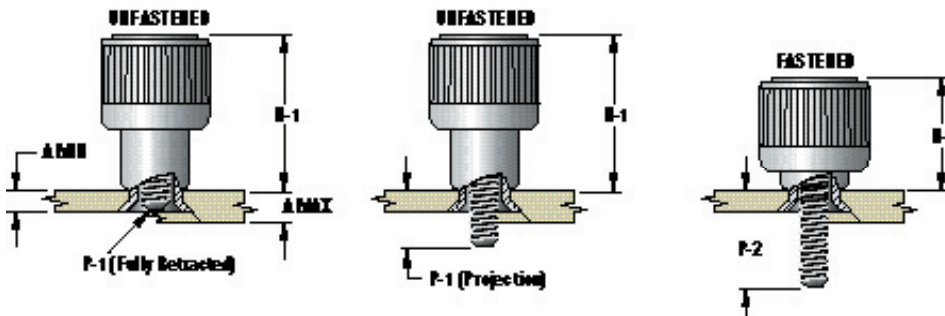
Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter  
(inch)

Dimensions without tolerances are for reference only.

## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER						
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination		
0.8 (.03)	—	0.8 (.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 (.22)	8.6 (.34)	47-63-101-24	47-63-121-24	47-63-141-24	47-63-161-20	47-63-181-24		
0.8 (.03)	—	1.5 (.06)	4.5 (.18)	47-65-101-34	47-65-121-34	47-65-141-34	47-65-161-30	47-65-181-34		
0.8 (.03)	1.0 (.041)	1.0 (.041)	0.8 (.03)	4 (.16)	47-10-101-14	47-10-121-14	47-10-141-14	47-10-161-10	47-10-181-14	
		1.8 (.070)	1.5 (.06)	4.7 (.19)	47-10-102-14	47-10-122-14	47-10-142-14	47-10-162-10	47-10-182-14	
		2.6 (.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	
	4.2 (.166)	4 (.16)	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
			5.8 (.299)	5.6 (.22)	8.8 (.35)	47-10-107-14	47-10-127-14	47-10-147-14	47-10-167-10	47-10-187-14
			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	
	1.0 (.041)	4 (.16)	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 (.22)	8.8 (.35)	47-13-101-14	47-13-121-14	47-13-141-14	47-13-161-10	47-13-181-14	
			3.2 (.13)	6.4 (.25)	47-11-102-14	47-11-122-14	47-11-142-14	47-11-162-10	47-11-182-14	
	1.8 (.070)	4.7 (.19)	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 (.25)	9.5 (.37)	47-13-102-14	47-13-122-14	47-13-142-14	47-13-162-10	47-13-182-14	
			1.9 (.07)	5.1 (.20)	47-10-110-14	47-10-130-14	47-10-150-14	47-10-170-10	47-10-190-14	
2.1 (.08)	2.6 (.101)	3.4 (.13)	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	
			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 (.132)	3.4 (.13)	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	
			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	
	4.2 (.164)	5 (.19)	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	


## Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.

# Southco® Captive Fasteners

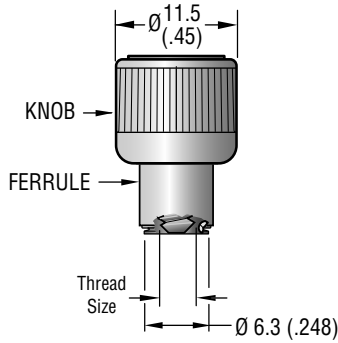
## Styled Knob Series, 6-32 Thread Size

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

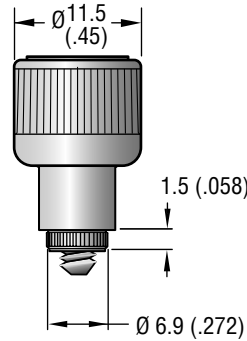
 To ensure you receive Southco® quality parts, look for the segmented circle.

### Installation Styles

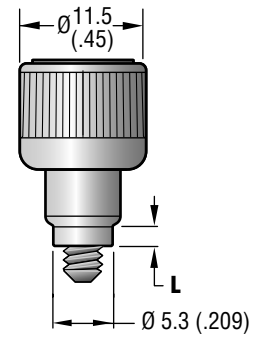
#### Press-in Style



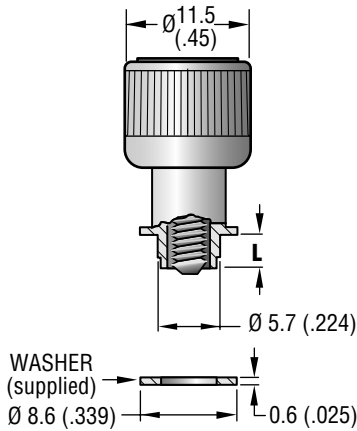
#### P.C. Board Style



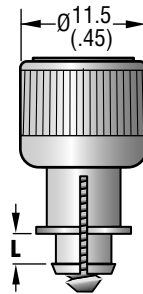
#### Flare-in Style



#### Floating Style



#### Snap-in Style



### 6-32 Thread Size

INSTALLATION STYLE	KNOB HEIGHT		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	15.9 (.63)	11.1 (.44)	0.9 (.036)	—	—
P.C. Board Style	14.8 (.58)	10 (.39)	1.6 (.061)	—	—
Flare-in Style	15.3 (.60)	10.4 (.41)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.8 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.3 (.251)	7.9 (.312)	4.8 (.189)
Floating Style	15.4 (.60)	10.6 (.42)	1.5 (.059)	3.2 (.125)	0.4 (.016)
			3.2 (.125)	4.8 (.189)	1.6 (.062)
			4.7 (.188)	6.4 (.250)	2.8 (.11)
Snap-in Style	15.4 (.60)	10.6 (.42)	0.5 (.020)	1 (.039)	2 (.079)
			1 (.039)	1.6 (.063)	2.6 (.103)
			—	0.8 (.031)	2.1 (.084)

#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

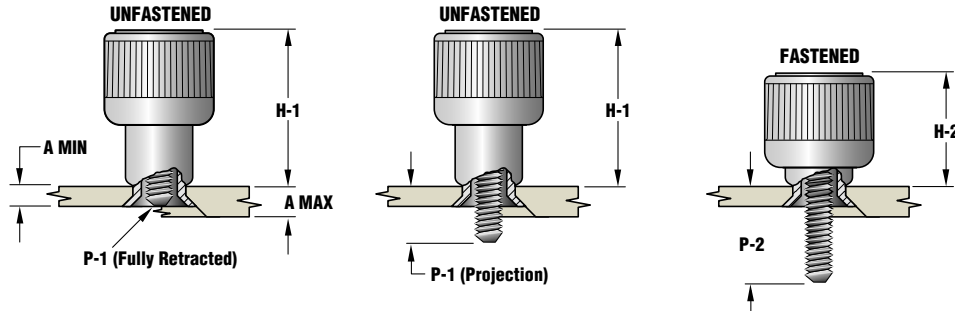
Captive Fasteners  
Captive Screws

## Recess Styles



### KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER				
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination
0.8 (.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 (.09)	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
0.8 (.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
0.8 (.03)	1.8 (.070)	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
		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
		4.3 (.17)	9.2 (.36)	47-10-206-14	47-10-226-14	47-10-246-14	47-10-266-10	47-10-286-14
	6.1 (.260)	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
		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
		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
	3.4 (.135)	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
		4.3 (.17)	9.2 (.36)	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
	4.6 (.18)	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
		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
		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
2.2 (.09)	2.9 (.113)	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
		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
	3.7 (.144)	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
0.8 (.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
	1.7 (.067)	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
		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		

### Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.



### Material and Finish

#### FERRULE:

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

P.C. Board Style: 300 Series stainless steel, passivated.

Snap-in: 2000 Series aluminum, natural.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", "2" to "6" or "3" to "7".  
Example: 47-60-221-**64**

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".  
Example: 47-60-221-**65**

Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter (inch)


Dimensions without tolerances are for reference only.



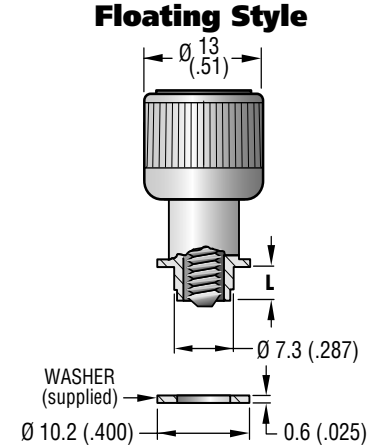
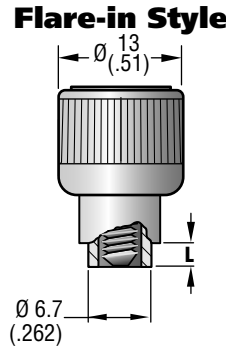
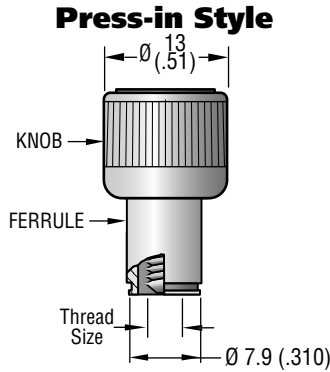
# Southco® Captive Fasteners

## Styled Knob Series, 8-32 Thread Size

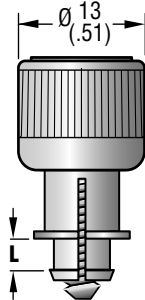
- Designed for hand operation
- Spring-ejected
- Wide variety of sizes, recesses and installation options

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

### Installation Styles



### Snap-in Style



### 8-32 Thread Size

INSTALLATION STYLE	KNOB HEIGHT†		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	16.2 (.64)	11.3 (.44)	0.9 (.036)	—	—
Flare-in Style	15.6 (.61)	10.5 (.41)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.7 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.3 (.251)	7.9 (.312)	4.8 (.187)
Floating Style	16 (.63)	11.2 (.44)	—	0.8 (.031)	2.3 (.090)
			0.8 (.031)	1.6 (.063)	3.1 (.121)
			1.6 (.063)	2.4 (.094)	3.9 (.153)
Snap-in Style	15.7 (.62)	11.2 (.44)	0.5 (.020)	1 (.039)	2 (.079)
			1 (.039)	1.6 (.063)	2.6 (.103)
			1.6 (.063)	2.5 (.098)	3.5 (.138)

† Add 1 (.04) for Torx® and Torx®/Slot

### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

## Recess Styles

SLOTTED



No. 2 PHILLIPS



T25 TORX®



T25 TORX® / SLOT COMBINATION

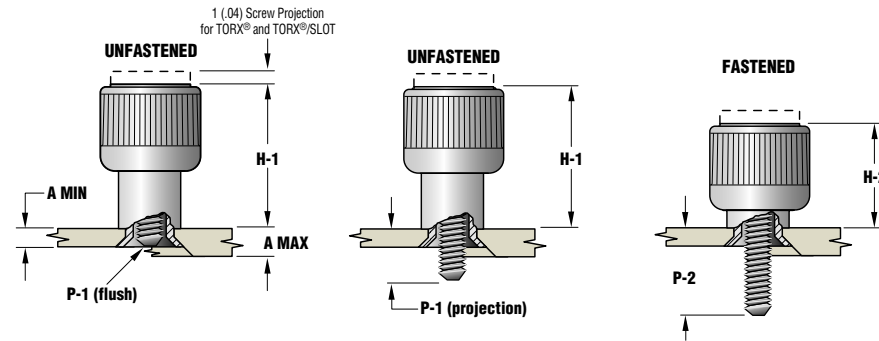


No. 2 PHILLIPS / SLOT COMBINATION



## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER				
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination
0.8 (.03)	—	0.7 (.03)	5.6 (.22)	47-60-301-24	47-60-321-24	47-60-341-20	47-60-361-20	47-60-381-20
		2.3 (.09)	7.2 (.28)	47-61-301-24	47-61-321-24	47-61-341-20	47-61-361-20	47-61-381-20
		3.8 (.15)	8.7 (.34)	47-62-301-24	47-62-321-24	47-62-341-20	47-62-361-20	47-62-381-20
		5.4 (.21)	10.3 (.41)	47-63-301-24	47-63-321-24	47-63-341-20	47-63-361-20	47-63-381-20
0.8 (.03)	1.8 (.070)	1.3 (.05)	6.4 (.25)	47-10-302-14	47-10-322-14	47-10-342-10	47-10-362-10	47-10-382-10
		2.3 (.09)	8 (.31)	47-10-304-14	47-10-324-14	47-10-344-10	47-10-364-10	47-10-384-10
	5 (.197)	4.4 (.17)	9.5 (.37)	47-10-306-14	47-10-326-14	47-10-346-10	47-10-366-10	47-10-386-10
		6.6 (.260)	11.1 (.44)	47-10-308-14	47-10-328-14	47-10-348-10	47-10-368-10	47-10-388-10
	1.8 (.070)	2.9 (.11)	8 (.31)	47-11-302-14	47-11-322-14	47-11-342-10	47-11-362-10	47-11-382-10
		4.4 (.17)	9.5 (.37)	47-12-302-14	47-12-322-14	47-12-342-10	47-12-362-10	47-12-382-10
		6 (.24)	11.1 (.44)	47-13-302-14	47-13-322-14	47-13-342-10	47-13-362-10	47-13-382-10
		4.4 (.17)	9.5 (.37)	47-11-304-14	47-11-324-14	47-11-344-10	47-11-364-10	47-11-384-10
	3.4 (.135)	6 (.24)	11.1 (.44)	47-12-304-14	47-12-324-14	47-12-344-10	47-12-364-10	47-12-384-10
		6 (.24)	11.1 (.44)	47-11-306-14	47-11-326-14	47-11-346-10	47-11-366-10	47-11-386-10
2.3 (.09)	3.2 (.127)	2.3 (.09)	7.3 (.29)	47-10-310-14	47-10-330-14	47-10-350-10	47-10-370-10	47-10-390-10
		3.8 (.15)	8.8 (.35)	47-11-310-14	47-11-330-14	47-11-350-10	47-11-370-10	47-11-390-10
		5.4 (.21)	10.4 (.41)	47-12-310-14	47-12-330-14	47-12-350-10	47-12-370-10	47-12-390-10
	4 (.158)	2.3 (.09)	7.3 (.29)	47-10-311-14	47-10-331-14	47-10-351-10	47-10-371-10	47-10-391-10
		3.8 (.15)	8.8 (.35)	47-11-311-14	47-11-331-14	47-11-351-10	47-11-371-10	47-11-391-10
		5.4 (.21)	10.4 (.41)	47-12-311-14	47-12-331-14	47-12-351-10	47-12-371-10	47-12-391-10
	4.8 (.190)	3.8 (.15)	8.8 (.35)	47-10-312-14	47-10-332-14	47-10-352-10	47-10-372-10	47-10-392-10
		5.4 (.21)	10.4 (.41)	47-11-312-14	47-11-332-14	47-11-352-10	47-11-372-10	47-11-392-10
0.8 (.03)	1.1 (.044)	1.2 (.05)	5.7 (.22)	47-60-310-14	47-60-330-14	47-60-350-10	47-60-370-10	47-60-390-10
		2.8 (.11)	7.3 (.29)	47-61-310-14	47-61-330-14	47-61-350-10	47-61-370-10	47-61-390-10
		4.3 (.17)	8.8 (.35)	47-62-310-14	47-62-330-14	47-62-350-10	47-62-370-10	47-62-390-10
		5.9 (.23)	10.4 (.41)	47-63-310-14	47-63-330-14	47-63-350-10	47-63-370-10	47-63-390-10
	1.7 (.068)	2.8 (.11)	7.3 (.29)	47-60-312-14	47-60-332-14	47-60-352-10	47-60-372-10	47-60-392-10
		4.3 (.17)	8.8 (.35)	47-61-312-14	47-61-332-14	47-61-352-10	47-61-372-10	47-61-392-10
		5.9 (.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)	7.3 (.29)	47-60-314-14	47-60-334-14	47-60-354-10	47-60-374-10	47-60-394-10
	2.6 (.103)	4.3 (.17)	8.8 (.35)	47-61-314-14	47-61-334-14	47-61-354-10	47-61-374-10	47-61-394-10
		5.9 (.23)	10.4 (.41)	47-62-314-14	47-62-334-14	47-62-354-10	47-62-374-10	47-62-394-10

## Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.

## Material and Finish

### FERRULE:

Press-in: Hardened carbon steel, zinc plate, chromate plus sealer.  
Flare-in and Floating: Aluminum, natural.  
Snap-in: 2000 Series aluminum, natural.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", or "2" to "6".

Example: 47-60-321-~~6~~4

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".

Example: 47-60-321-65

Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

# Southco® Captive Fasteners

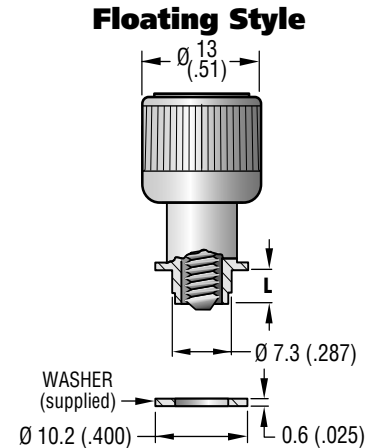
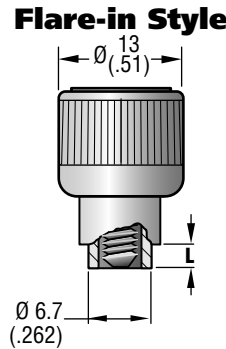
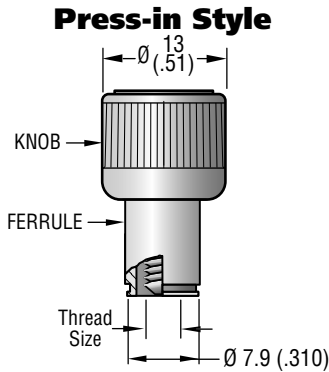
## Styled Knob Series, 10-32 Thread Size

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

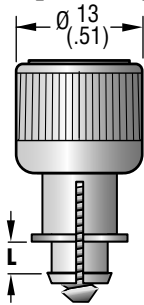


To ensure you receive Southco® quality parts, look for the segmented circle.

### Installation Styles



### Snap-in Style



### 10-32 Thread Size

INSTALLATION STYLE	KNOB HEIGHT†		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	16.2 (.64)	11.3 (.44)	0.9 (.036)	—	—
			1.5 (.058)	3.2 (.125)	0.4 (.015)
Flare-in Style	15.6 (.61)	10.5 (.41)	3.2 (.126)	4.7 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.3 (.251)	7.9 (.312)	4.8 (.187)
			1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.8 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
Floating Style	16 (.63)	11.2 (.44)	—	0.8 (.031)	2.3 (.090)
			0.8 (.031)	1.6 (.063)	3.1 (.121)
			1.6 (.063)	2.4 (.094)	3.9 (.153)
Snap-in Style	15.7 (.62)	11.2 (.44)	0.5 (.020)	1 (.039)	2 (.079)
			1 (.039)	1.6 (.063)	2.6 (.103)
			1.6 (.063)	2.5 (.098)	3.5 (.138)

### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

Part Numbers in shaded blocks are fully retracting.

† Add 1 (.04) for Torx® and Torx®/Slot

## Recess Styles

SLOTTED



No. 2 PHILLIPS



T25 TORX®



T25 TORX® / SLOT COMBINATION

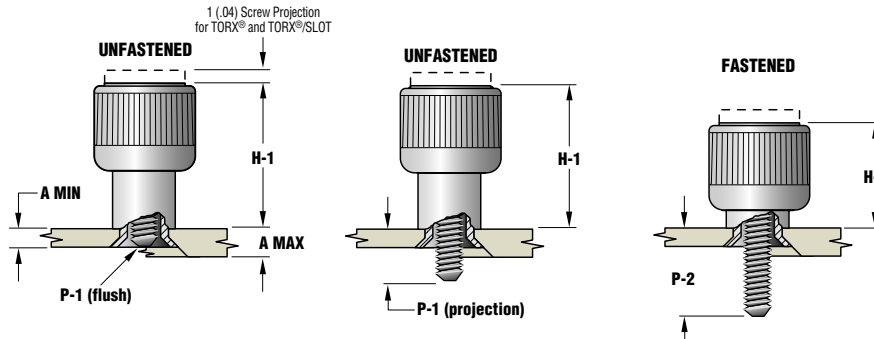


No. 2 PHILLIPS / SLOT COMBINATION



## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER					
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination	
		0.8 (.03)		0.6 (.02)	5.5 (.22)	47-60-501-24	47-60-521-24	47-60-541-20	47-60-561-20
0.8 (.03)	1.8 (.070)	2.3 (.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)	8.7 (.34)	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	
		6.6 (.260)	11.1 (.44)	47-10-502-14	47-10-522-14	47-10-542-10	47-10-562-10	47-10-582-10	
	3.4 (.135)	2.9 (.11)	8 (.31)	47-10-504-14	47-10-524-14	47-10-544-10	47-10-564-10	47-10-584-10	
		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 (.24)	11.1 (.44)	47-10-508-14	47-10-528-14	47-10-548-10	47-10-568-10	47-10-588-10	
		2.9 (.11)	8 (.31)	47-11-502-14	47-11-522-14	47-11-542-10	47-11-562-10	47-11-582-10	
		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	
		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	
		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	
		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	
2.3 (.09)	3.2 (.127)	2.3 (.09)	7.3 (.29)	47-10-510-14	47-10-530-14	47-10-550-10	47-10-570-10	47-10-590-10	
		3.8 (.15)	8.8 (.35)	47-11-510-14	47-11-530-14	47-11-550-10	47-11-570-10	47-11-590-10	
		5.4 (.21)	10.4 (.41)	47-12-510-14	47-12-530-14	47-12-550-10	47-12-570-10	47-12-590-10	
	4 (.158)	2.3 (.09)	7.3 (.29)	47-10-511-14	47-10-531-14	47-10-551-10	47-10-571-10	47-10-591-10	
		3.8 (.15)	8.8 (.35)	47-11-511-14	47-11-531-14	47-11-551-10	47-11-571-10	47-11-591-10	
		5.4 (.21)	10.4 (.41)	47-12-511-14	47-12-531-14	47-12-551-10	47-12-571-10	47-12-591-10	
		3.8 (.15)	8.8 (.35)	47-10-512-14	47-10-532-14	47-10-552-10	47-10-572-10	47-10-592-10	
		5.4 (.21)	10.4 (.41)	47-11-512-14	47-11-532-14	47-11-552-10	47-11-572-10	47-11-592-10	
		6.6 (.260)	11.1 (.44)	47-12-512-14	47-12-532-14	47-12-552-10	47-12-572-10	47-12-592-10	
	0.8 (.03)	1.1 (.044)	1.2 (.05)	5.7 (.22)	47-60-510-14	47-60-530-14	47-60-550-10	47-60-570-10	47-60-590-10
			2.8 (.11)	7.3 (.29)	47-61-510-14	47-61-530-14	47-61-550-10	47-61-570-10	47-61-590-10
			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
1.7 (.068)		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	
		2.8 (.11)	7.3 (.29)	47-60-512-14	47-60-532-14	47-60-552-10	47-60-572-10	47-60-592-10	
		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	
		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	
		2.8 (.11)	7.3 (.29)	47-60-514-14	47-60-534-14	47-60-554-10	47-60-574-10	47-60-594-10	
		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	
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	

## Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.

## Material and Finish

### FERRULE:

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

Flare-in and Floating: Aluminum, natural.

Snap-in: Aluminum, natural.

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", or "2" to "6".

Example: 47-60-521-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".

Example: 47-60-521-65

Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

# Southco® Captive Fasteners

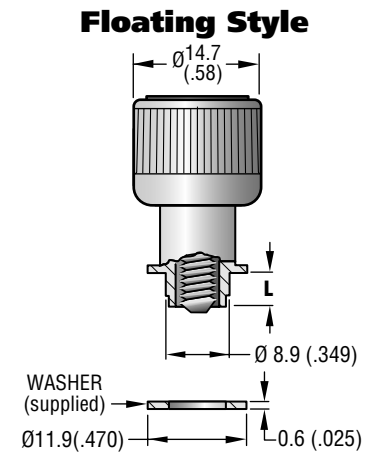
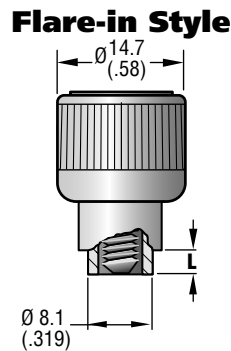
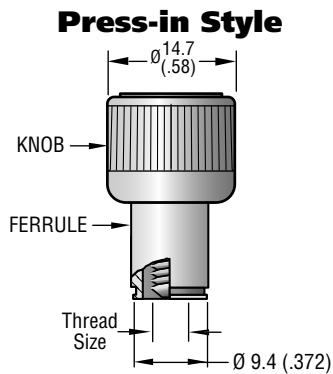
## Styled Knob Series, 1/4-20 Thread Size

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



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

### Installation Styles



Captive Fasteners  
Captive Screws

#### To find the right screw fastener:

1. Turn to the page presenting the thread size you need.
2. Determine which installation style best suits your application.
3. Find the appropriate outer panel dimensions for **A MIN**, **A MAX**, and **B\***.
4. Determine the appropriate **P-2** screw projection for your application. Note that screw projection dimensions are measured from the outer surface of the outer panel. In some applications the **P-1** dimension may project beyond the outer panel in the unfastened condition.
5. Select the recess, finish and knob style.

**Part Numbers in shaded blocks are fully retracting.**

### 1/4-20 Thread Size

INSTALLATION STYLE	KNOB HEIGHT†		OUTER PANEL DIMENSIONS*		
	H-1	H-2	A MIN	A MAX	B
Press-in Style	20 (.79)	13.4 (.53)	0.9 (.036)	—	—
Flare-in Style	19.3 (.76)	12.7 (.50)	1.5 (.058)	3.2 (.125)	0.4 (.015)
			3.2 (.126)	4.8 (.187)	1.6 (.062)
			4.8 (.188)	6.4 (.250)	3.2 (.125)
			6.4 (.251)	7.9 (.312)	4.8 (.187)
Floating Style	20 (.79)	13.3 (.52)	—	0.8 (.031)	2.5 (.097)
			0.8 (.031)	1.6 (.063)	3.3 (.128)
			1.6 (.063)	2.4 (.094)	4.1 (.160)

† Add 1 (.04) for Torx® and Torx®/Slot

## Recess Styles

SLOTTED



No. 2 PHILLIPS



T30 TORX®



T30 TORX® / SLOT COMBINATION

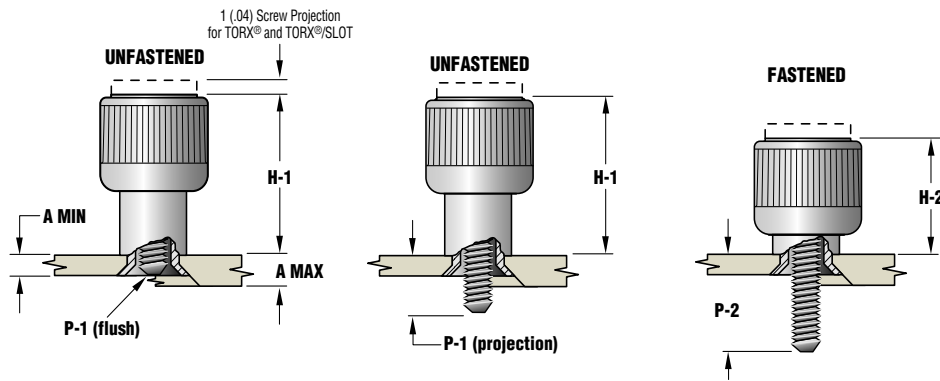


No. 2 PHILLIPS / SLOT COMBINATION



## KNOB HEIGHT AND SCREW PROJECTION

(Flare-in Style Shown)



= full retracting in minimum panel thickness

Total Float	FLANGE LENGTH L	Screw projection beyond outer surface of panel		PART NUMBER					
		P-1	P-2	Slotted Recess	Phillips Recess	Torx® Recess	Torx®/Slot Combination	Phillips/Slot Combination	
		0.8 (.03)		0.5 (.02)	7.1 (.28)	47-60-601-24	47-60-621-24	47-60-641-20	47-60-661-20
0.8 (.03)	1.8 (.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	
		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	
		4.4 (.17)	11 (.43)	47-10-606-14	47-10-626-14	47-10-646-10	47-10-666-10	47-10-686-10	
		6.6 (.260)	12.6 (.50)	47-10-608-14	47-10-628-14	47-10-648-10	47-10-668-10	47-10-688-10	
	1.8 (.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	
		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	
		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	
		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
	2.3 (.09)	3.2 (.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
		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	
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	
4.8 (.190)		5.3 (.21)	12 (.47)	47-11-612-14	47-11-632-14	47-11-652-10	47-11-672-10	47-11-692-10	

## Installation for All Styles

\*For panel preparation and installation instructions, see pages 238 and 239.

## Material and Finish

### FERRULE:

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

**SPRING (internal component, not shown):** 300 Series stainless steel, passivated.

**KNOB:** Aluminum, natural or black powder coated.

**SCREW:** Hardened carbon steel, zinc plate, chromate plus sealer or zinc plate, chromate plus black powder coating (screw head only).

**WASHER (Floating Style):** 300 Series stainless steel, passivated.

A Floating assembly consists of one screw sub assembly and one washer, shipped separately.

NOTE: For black finish, change the 8th digit of your part number from "1" to "5", or "2" to "6".  
Example: 47-60-621-64

NOTE: For Screws with the smooth knob style, change the last digit of your part number from "4" to "5" or "0" to "1".  
Example: 47-60-621-65

Torx® is a registered trademark of the Camcar Division of Textron Inc.

millimeter (inch)

millimeter (inch)

Dimensions without tolerances are for reference only.

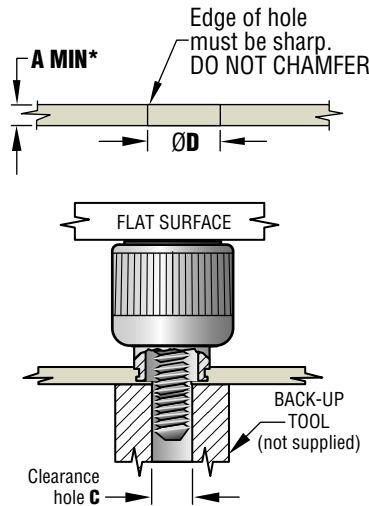
# Southco® Captive Fasteners

## Styled Knob Series Panel Preparation and Installation

### Press-in Style

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

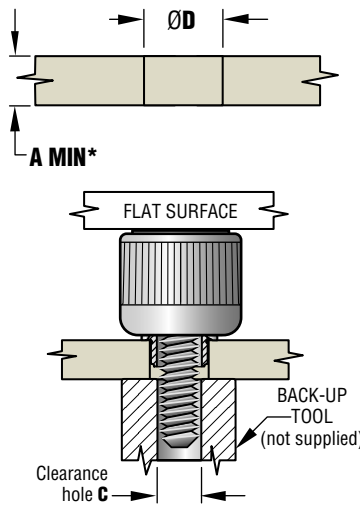
**NOTE:** Recommended minimum distance from edge of panel to centerline of hole is  $1.5 \times \text{ØD}$ .



For Thread Size	ØD	Clearance Hole C <small>+0.2 (+.008) -0.1 (-.004)</small>
M3 or 4-40	$5.6^{+0.03}_{-0.05}$ (.219 <sup>+.003</sup> <sub>-.000</sub> )	3.2 (.125)
M3.5 or 6-32	$6.4^{+0.03}_{-0.05}$ (.250 <sup>+.003</sup> <sub>-.000</sub> )	3.7 (.146)
M4 or 8-32	$8^{+0.00}_{-0.08}$ (.315 <sup>+.000</sup> <sub>-.003</sub> )	4.4 (.173)
M5 or 10-32	$8^{+0.00}_{-0.08}$ (.315 <sup>+.000</sup> <sub>-.003</sub> )	5.2 (.205)
M6 or 1/4-20	$9.5^{+0.1}_{-0.0}$ (.375 <sup>+.003</sup> <sub>-.000</sub> )	6.2 (.260)

### P.C. Board Style

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.



For Thread Size	ØD	Clearance Hole C
M3 or 4-40	$5.6^{+0.1}_{-0.05}$ (.219 <sup>+.004</sup> <sub>-.002</sub> )	3.2 (.120)
M3.5 or 6-32	$6.4 \pm 0.1$ (.252 ± .004)	3.7 (.144)

### Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Pullout force: 360N (80 lbs.)

Side load against unfastened knob:  
200N (45 lbs.)

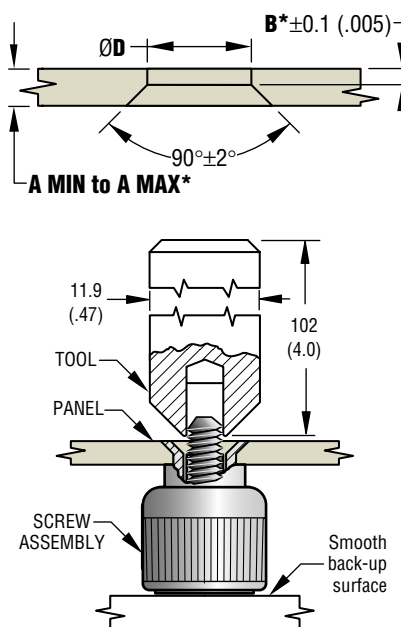
**NOTE:** Strength data based on drilled holes in G-10 P.C. Board.

### Flare-in Style

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 lbs.) to 2500 N (550 lbs.)

Installation force depends on thread size.



For Thread Size	ØD	Tool Part Number
M3 or 4-40	$4.8^{+0.08}_{-0.05}$ (.187 <sup>+.005</sup> <sub>-.000</sub> )	47-104
M3.5 or 6-32	$5.4^{+0.1}_{-0.0}$ (.213 <sup>+.005</sup> <sub>-.000</sub> )	47-106
M4 or 8-32	$6.8^{+0.08}_{-0.04}$ (.266 <sup>+.005</sup> <sub>-.000</sub> )	47-108
10-32	$6.8^{+0.08}_{-0.04}$ (.266 <sup>+.005</sup> <sub>-.000</sub> )	47-110
M5	$6.8^{+0.08}_{-0.04}$ (.266 <sup>+.005</sup> <sub>-.000</sub> )	47-115
M6 or 1/4-20	$8.2^{+0.1}_{-0.0}$ (.323 <sup>+.005</sup> <sub>-.000</sub> )	47-125

millimeter (inch)  
millimeter (inch)

Dimensions without tolerances are for reference only.

\*Refer to the corresponding thread size page for dimensions.

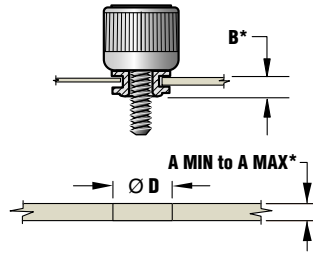
# Southco® Captive Fasteners

## Styled Knob Series Panel Preparation and Installation

### Floating Style

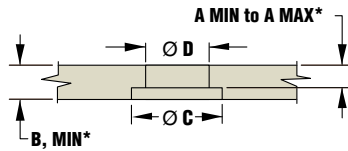
**Panel Preparation I - Requires space between inner and outer panels.**

For outer panel thicknesses within the range of "A", as specified on the corresponding thread size page, space between panels must be at least "B" minus your outer panel thickness.



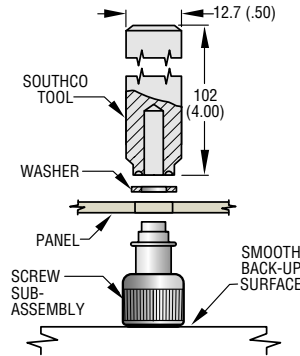
**Panel Preparation II - Provides a flush panel-to-panel condition when fastened.**

For outer panel thicknesses of at least "B" a counterbore of  $\varnothing C$  is required to leave a remaining thickness within the range of "A". "A" and "B" are specified on the corresponding thread size pages.



### Installation

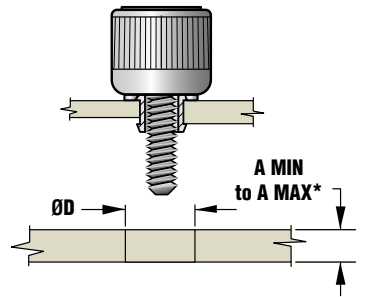
1. Place Southco® installation tool in a press capable of providing 890 N (200 lbs.) to 3115 N (700 lbs.) of force. Installation force depends on thread size.
2. Center the tool on the screw thread, then roll the ferrule over the washer to captivate the assembly. (Caution: Excessive force will damage the screw assembly).



### Snap-in Style

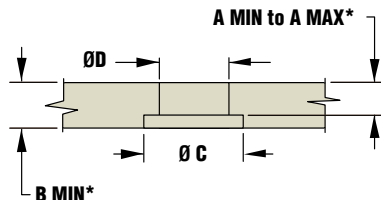
**Panel Preparation I - Requires space between inner and outer panels.**

For outer panel thicknesses within the range of "A", as specified on the corresponding thread size page, space between panels must be at "B" minimum, minus your outer panel thickness.



**Panel Preparation II - Provides a flush panel-to-panel condition when fastened.**

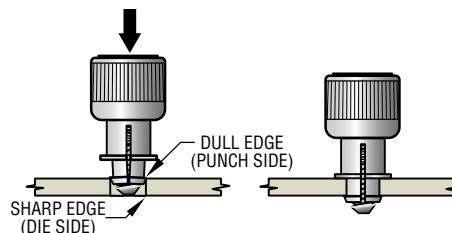
For outer panel thicknesses of at least "B" a counterbore of  $\varnothing C$  is required to leave a remaining thickness within the range of "A". "A" and "B" are specified on the corresponding thread size pages.



### Installation

1. Prepare panel as shown. NOTE: If holes are drilled, top edge of hole should be chamfered.
2. Screw assembly can be installed with finger pressure from punch side of panel (see illustrations).

NOTE: Assembly must be kept perpendicular to panel while snapping into hole.



\*Refer to the corresponding thread size page for dimensions.

southco®

Contact Southco or an Authorized Southco Distributor for current availability and delivery information.

For Thread Size	$\varnothing D$ +0.08 -0.03 (+.003 -.001)	Counter-bore MIN $\varnothing C$
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)

For 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

### Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Pullout force: 290N (65 lbs.)

Side load against unfastened knob:

180N (40 lbs.)

For Thread Size	$\varnothing D$ +0.0 -0.1 (± .002)	$\varnothing C$ MIN
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)

NOTE: For installation near MAX panel thickness, deburr hole.

millimeter (inch)  
millimeter  
(inch)

Dimensions without tolerances are for reference only.