Captivating fasteners to panels prevents the loss of hardware and the potential damage caused by dropping fasteners into operating equipment. Captive screws are especially useful for applications requiring repetitive fastening. Numerous Southco styles are available to suit specific space and access requirements.

SOUTHCO® Captive Screws are available in a variety of panel mounting styles and head styles to suit industry-standard and application requirements. The overmolded 4C Captive Screws are available in several screw sizes and feature colored molded polycarbonate / ABS knobs that enable you to coordinate color to design schemes or to differentiate access points for quick identification.

- High strength screws for use with high torque drivers
- Increased strength and corrosion-resistance
- Standard and custom colors available
- Variety of installation styles
- Tool or hand operation
- Modifications and custom solutions are available to suit individual application requirements
When flexibility is of the utmost importance, Southco's line of fast-lead screw fasteners provide access in just a few turns. The coarse pitch of the fast-lead screw, when matched with the broad range of receptacles, provides built in vibration resistance over a wide range of panel thicknesses.

- High strength fastening system
- Vibration resistant
- Fast access in just a few turns
- Tolerant of material variation
Captive Screws
Metric/Unified threaded fasteners selection guide

Use this selection guide to help make the right choice of captive screw for your application

Design Considerations:
- Panel Material
- Panel Thickness
- Environment
- Alignment Tolerance
- Space Available
- Recess Requirements
- Strength Required

Heat Sink Installation

<table>
<thead>
<tr>
<th>TOOL RECESS</th>
<th>THREAD SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3</td>
<td>M3.5</td>
</tr>
<tr>
<td>PAGES 440-459, 470</td>
<td>✔</td>
</tr>
<tr>
<td>PAGES 460-463, 471</td>
<td>✔</td>
</tr>
<tr>
<td>PAGES 464-467</td>
<td>✔</td>
</tr>
<tr>
<td>PAGES 472, 474-475</td>
<td>✔</td>
</tr>
<tr>
<td>PAGE 480</td>
<td>✔</td>
</tr>
<tr>
<td>PAGE 481</td>
<td>✔</td>
</tr>
<tr>
<td>PAGE 481 Restricted access</td>
<td>✔</td>
</tr>
</tbody>
</table>

www.southco.com

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

Contact Southco

www.aboveboardelectronics.com

Request Info

1-800-453-1692
## INSTALLATION

- Self Clinching (Press-In)
- Flare-In
- Floating
- PCB
- SMT
- Snap-In

## APPLICATION REQUIREMENTS

<table>
<thead>
<tr>
<th></th>
<th>Stainless Steel</th>
<th>Low Profile</th>
<th>Flush</th>
<th>Hand Operable</th>
<th>Black Finish</th>
<th>Color Coded Knob</th>
<th>Restricted Access UL-1950</th>
<th>ATCA Compliant</th>
<th>High Strength Screw</th>
<th>Fixed Spring Preload</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
<td>Smooth knob</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>
How to specify SOUTHCO® Captive Screws

1. Choose the product type that best suits your application using the product benefits table.

2. Select your product features: Recess, installation style, color, size.

3. Specify the final part numbers using the tables found with each product style.

4. You can also specify your SOUTHCO® hardware on the web. Simply enter your product type into the search engine and configure online.

SOUTHCO® Captive Screws are available in a variety of sizes and configurations to give you endless options to control or enable access in your applications. Specifying SOUTHCO® Captive Screws is easy. Just follow the instructions below or go to www.southco.com.

| Product benefits table: Determine the product that best fits your application requirements. Additional information is available in the selection table on page 436-437. |
|---|---|
| **47** | • Stylized designer knob  
• Installation for a wide variety of material configurations  
• Knurled knob for easy, hand operation  
• Custom powder coat color matching |
| **4C** | • Define access points with color  
• Color match to your industrial design |
| **47** | • Restrict access to service areas with tighten by hand, tool to release options  
• Meets service access standards |
| **52** | • Lower profile knob for tight spaces  
• High strength screw for fast assembly |
| **5T** | • Maximize heat transfer  
• Screw sets defined preload  
• Maintain contact under vibration  
• Allows for thermal expansion while maintaining preload to defined range |
| **F5** | • Flush recessed captive design  
• Tool only access  
• All stainless steel design |
| **N7** | • Fastens to thread stud for a flush panel configuration  
• Available with blind threaded hole for a finished appearance |
Select the product features that you need

Tool Recess

<table>
<thead>
<tr>
<th>Which access is best for your application?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Slotted:</strong> Common recess</td>
</tr>
<tr>
<td><strong>Phillips:</strong> Better tool retention</td>
</tr>
<tr>
<td><strong>Phillips / Slot:</strong> Combine the better tool retention of Phillips with the convenience of a slotted recess</td>
</tr>
<tr>
<td><strong>TORX®:</strong> Higher torque transfer</td>
</tr>
<tr>
<td><strong>TORX® / Slot:</strong> Combine the benefits of TORX® with the convenience of a slotted recess</td>
</tr>
</tbody>
</table>

Installation Style

<table>
<thead>
<tr>
<th>Which installation method is best for your application?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Clinching, Press-In:</strong> One-step press operation</td>
</tr>
<tr>
<td><strong>Flare-In:</strong> Near edge installation in plastics, castings and any material</td>
</tr>
<tr>
<td><strong>Floating:</strong> Provides additional radial float to accommodate a significant amount of misalignment</td>
</tr>
<tr>
<td><strong>P.C. Board:</strong> Designed for use in P.C. boards and other composites such as fiberglass</td>
</tr>
<tr>
<td><strong>Snap-In:</strong> Install by hand, no special tools required</td>
</tr>
<tr>
<td><strong>SMT:</strong> For installation to PC Board material utilizing surface mount technology</td>
</tr>
</tbody>
</table>

Color

When an off-the-shelf design doesn’t quite meet your needs…

Lower profile, ergonomic, extended reach, small space envelope…no problem!

Speed up service and decrease assembly time in tight spaces!

Have a wish list? Southco can give you the solution.
47 Captive Screws
Styled knob series · M3 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plated, chromate, plus sealer
Flare-in and Floating:
Aluminum, natural
P.C. board style: 300 Series stainless steel, passivated

Knob:
Aluminum, natural or black powder coated

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

Installation Notes
See pages 468-469, 543

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

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

---

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 1 Phillips</th>
<th>T10 Torx®</th>
<th>T10 Torx®/Slot Combination</th>
<th>No. 1 Phillips/Slot Combination</th>
</tr>
</thead>
</table>

Knob Height and Screw Projection
(Flare-in style shown)

Dimensions in millimeters (inch) unless otherwise stated

---

Press-In Style

<table>
<thead>
<tr>
<th>Ø 10.6 (.42)</th>
<th>Ø 5.5 (.217)</th>
</tr>
</thead>
</table>

Flare-In Style

<table>
<thead>
<tr>
<th>Ø 10.6 (.42)</th>
<th>Ø 4.6 (.181)</th>
</tr>
</thead>
</table>

Floating Style

<table>
<thead>
<tr>
<th>Ø 10.6 (.42)</th>
<th>Ø 4.9 (.194)</th>
</tr>
</thead>
</table>

P.C. Board Style

<table>
<thead>
<tr>
<th>Ø 10.6 (.42)</th>
<th>Ø 6.1 (.240)</th>
</tr>
</thead>
</table>

Washer (supplied)
ø 7.8 (.307) | 0.6 (.025) |
Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H-1</td>
<td>H-2</td>
<td>A Min.</td>
<td>A Max.</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>11.3 (.45)</td>
<td>8.3 (.33)</td>
<td>0.9 (.036)</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>11.1 (.43)</td>
<td>8.3 (.33)</td>
<td>0.9 (.036)</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>11.1 (.43)</td>
<td>8.3 (.33)</td>
<td>0.9 (.036)</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>11.1 (.43)</td>
<td>8.3 (.33)</td>
<td>0.9 (.036)</td>
<td>~</td>
</tr>
<tr>
<td>P.C. Board Style</td>
<td>11.5 (.45)</td>
<td>8.3 (.33)</td>
<td>1.6 (.061)</td>
<td>~</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>11.5 (.45)</td>
<td>8.1 (.32)</td>
<td>0.8 (.031)</td>
<td>1.5 (.058)</td>
</tr>
<tr>
<td></td>
<td>11.5 (.45)</td>
<td>8.1 (.32)</td>
<td>0.8 (.031)</td>
<td>1.5 (.058)</td>
</tr>
<tr>
<td></td>
<td>11.5 (.45)</td>
<td>8.1 (.32)</td>
<td>0.8 (.031)</td>
<td>1.5 (.058)</td>
</tr>
<tr>
<td>Floating Style</td>
<td>11.4 (.45)</td>
<td>8.6 (.34)</td>
<td>~</td>
<td>0.8 (.031)</td>
</tr>
<tr>
<td></td>
<td>11.4 (.45)</td>
<td>8.6 (.34)</td>
<td>~</td>
<td>0.8 (.031)</td>
</tr>
<tr>
<td></td>
<td>11.4 (.45)</td>
<td>8.6 (.34)</td>
<td>~</td>
<td>0.8 (.031)</td>
</tr>
</tbody>
</table>

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

To add a black powder coated finish, change the part number from the table as shown:
- Change 1 to 5: 47-80-102-14
  47-80-102-54
- Change 2 to 6: 47-80-102-24
  47-80-102-64
- Change 3 to 7: 47-80-102-34
  47-80-102-74

For a smooth knob, change the part number from the table as shown:
- Change 0 to 1: 47-90-161-20
  47-90-161-21
- Change 4 to 5: 47-90-101-24
  47-90-101-25

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

Part Number
See table
All screw part numbers shown in table are for a natural knob finish and a knurled knob.
For black finish and smooth knob options, minimums may apply.
47 Captive Screws
Styled knob series · M3.5 thread size

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T15 TORX®</th>
<th>T15 TORX® / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Slotted]</td>
<td>![No. 2 Phillips]</td>
<td>![T15 TORX®]</td>
<td>![T15 TORX® / Slot Combination]</td>
<td>![No. 2 Phillips / Slot Combination]</td>
</tr>
</tbody>
</table>

Knob Height and Screw Projection
(Flare-in style shown)

![Unfastened](H-1, A Max., A Min.)

![Unfastened](H-1, P-1)

![Fastened](H-2, P-2)

Installation Styles

Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Press-In Style</th>
<th>P.C. Board Style</th>
<th>Flare-In Style</th>
<th>Floating Style</th>
<th>Snap-In Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Press-In Style](Ø 11.5 (.45))</td>
<td>![P.C. Board Style](Ø 11.5 (.45))</td>
<td>![Flare-In Style](Ø 11.5 (.45))</td>
<td>![Floating Style](Ø 11.5 (.45))</td>
<td>![Snap-In Style](Ø 11.5 (.45))</td>
</tr>
</tbody>
</table>

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

Knob:
- Aluminum, natural or black powder coated

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

Installation Notes
See pages 468-469, 543

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

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

www.southco.com/47

1-800-453-1692
www.aboveboardelectronics.com
### Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Total Float</th>
<th>Flange Length L</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H-1 (63) A Min.</td>
<td>A Max.</td>
<td>0.8 (0.03)</td>
<td>0.8 (0.03)</td>
<td>1.0 (0.04)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>15.9(0.63)</td>
<td>11.2(0.44)</td>
<td>0.9(0.035)</td>
<td>0.9(0.035)</td>
<td>1.0(0.04)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
<tr>
<td></td>
<td>P.C. Board Style</td>
<td>14.8(0.58)</td>
<td>10(0.39)</td>
<td>1.6(0.061)</td>
<td>1.6(0.061)</td>
<td>1.4 (0.06)</td>
<td>47-95-201-34</td>
</tr>
<tr>
<td></td>
<td>15.3(0.60)</td>
<td>10.4(0.41)</td>
<td>6.4(0.252)</td>
<td>6.4(0.252)</td>
<td>1.8 (0.07)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>15.5(0.61)</td>
<td>10.6(0.42)</td>
<td>8.8(0.35)</td>
<td>8.8(0.35)</td>
<td>2.4 (0.09)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
<tr>
<td></td>
<td>15.4(0.60)</td>
<td>10.6(0.42)</td>
<td>1.6(0.063)</td>
<td>1.6(0.063)</td>
<td>2.4 (0.09)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
<tr>
<td>Floating Style</td>
<td>15.4(0.60)</td>
<td>10.6(0.42)</td>
<td>1.0(0.039)</td>
<td>1.0(0.039)</td>
<td>2.4 (0.09)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
<tr>
<td>Snap-In Style</td>
<td>15.4(0.60)</td>
<td>10.6(0.42)</td>
<td>1.6(0.063)</td>
<td>1.6(0.063)</td>
<td>2.4 (0.09)</td>
<td>47-80-200-14</td>
<td>47-80-200-14</td>
</tr>
</tbody>
</table>

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

---

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

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

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

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

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

---

Part Number

See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob. For black finish and smooth knob options, minimums may apply.
47 Captive Screws
Styled knob series · M4 thread size

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

**Material and Finish**
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in, floating and snap-in:
Aluminum, natural

Knob: Aluminum, natural or black powder coated

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

**Installation Notes**
See pages 468-469, 543

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

---

**Recess Styles**

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T25 TÖRX®</th>
<th>T25 TÖRX® / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

**Knob Height and Screw Projection**
(Flare-in style shown)

- **Unfastened**
  - 1 (.04) Screw projection for TÖRX® and TÖRX® / slot

- **Unfastened**
  - A Min.

- **Fastened**
  - A Max.

Dimensions in millimeters (inch) unless otherwise stated

**Installation Styles**

- **Press-In Style**
  - Ø 13 (.51)

- **Flare-In Style**
  - Ø 13 (.51)

- **Floating Style**
  - Ø 13 (.51)

- **Snap-In Style**
  - Ø 13 (.51)

**TORX®** is a registered trademark of ACUMENT® Intellectual Properties, LLC
<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Total Float</th>
<th>Flange Length</th>
<th>Screw Projection</th>
<th>Phillips / Slot Combination</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>16.2 (61)</td>
<td>11.3 (45)</td>
<td>0.9 (.036)</td>
<td>–</td>
<td>0.8 (.03)</td>
<td>0.12 (.007)</td>
<td>1.2 (.05)</td>
<td>1.2 (.005)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>15.6 (61)</td>
<td>10.5 (41)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.4 (.015)</td>
<td>1.8 (.07)</td>
<td>2.8 (.11)</td>
<td>5 (.197)</td>
</tr>
<tr>
<td>Floating Style</td>
<td>16.2 (64)</td>
<td>11.2 (44)</td>
<td>–</td>
<td>0.8 (.031)</td>
<td>2.3 (.09)</td>
<td>3.2 (.127)</td>
<td>2.4 (.09)</td>
<td>5.4 (.103)</td>
</tr>
<tr>
<td>Snap-In Style</td>
<td>15.7 (62)</td>
<td>11.2 (44)</td>
<td>1.0 (.039)</td>
<td>1.6 (.063)</td>
<td>2.6 (.102)</td>
<td>4 (.190)</td>
<td>4 (.16)</td>
<td>4 (.16)</td>
</tr>
</tbody>
</table>

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

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

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

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

- Change 0 to 1: 47-90-161-20, 47-90-161-21

Part numbers and options may apply.

Part Number
See table

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

For black finish and smooth knob options, minimums may apply.
47 Captive Screws
Styled knob series · M5 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in, floating and snap-in: Aluminum, natural

Knob: Aluminum, natural or black powder coated

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

Installation Notes
See pages 468-469, 543

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

Recess Styles
<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T25 TORX®</th>
<th>T25 TORX® / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Knob Height and Screw Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Flare-in style shown)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unfastened</th>
<th>Fastened</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-1</td>
<td>H-2</td>
</tr>
<tr>
<td>A Min.</td>
<td></td>
</tr>
<tr>
<td>A Max.</td>
<td></td>
</tr>
<tr>
<td>P-1</td>
<td></td>
</tr>
<tr>
<td>P-2</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions in millimeters (inch) unless otherwise stated

Installation Styles
Press-In Style
Flare-In Style
Floating Style
Snap-In Style

www.southco.com/47

TORX® is a registered trademark of AUMENT® Intellectual Properties, LLC
<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>Total Float</th>
<th>Flange Length</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Press-In Style</strong></td>
<td>H-1</td>
<td>H-2</td>
<td>A Min.</td>
<td>A Max.</td>
<td>B</td>
<td>P-1</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>16.2 (.64)</td>
<td>11.3 (.45)</td>
<td>0.9 (.036)</td>
<td>–</td>
<td>–</td>
<td>0.6 (.02)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.2 (.087)</td>
<td>7.1 (.28)</td>
<td>47-91-501-24</td>
<td>47-91-521-24</td>
</tr>
<tr>
<td><strong>Flare-In Style</strong></td>
<td>15.6 (.61)</td>
<td>10.5 (.41)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.4 (.105)</td>
<td>1.8 (.070)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.2 (.126)</td>
<td>4.8 (.189)</td>
<td>1.6 (.162)</td>
<td>3.4 (.135)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.8 (.189)</td>
<td>6.4 (.250)</td>
<td>3.2 (.125)</td>
<td>5 (.197)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.3 (.251)</td>
<td>7.9 (.312)</td>
<td>4.8 (.189)</td>
<td>6.6 (.260)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.4 (.105)</td>
<td>1.8 (.070)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.2 (.126)</td>
<td>4.8 (.189)</td>
<td>1.6 (.162)</td>
<td>3.4 (.135)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.8 (.189)</td>
<td>6.4 (.250)</td>
<td>3.2 (.125)</td>
<td>5 (.197)</td>
</tr>
<tr>
<td><strong>Floating Style</strong></td>
<td>16 (.63)</td>
<td>11.2 (.44)</td>
<td>–</td>
<td>0.8 (.031)</td>
<td>2.3 (.090)</td>
<td>3.2 (.127)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.8 (.031)</td>
<td>1.6 (.063)</td>
<td>3.1 (.121)</td>
<td>2.3 (.09)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.6 (.063)</td>
<td>2.4 (.094)</td>
<td>3.9 (.153)</td>
<td>4.8 (.190)</td>
</tr>
<tr>
<td><strong>Snap-In Style</strong></td>
<td>15.7 (.62)</td>
<td>11.2 (.44)</td>
<td>0.5 (.020)</td>
<td>1.0 (.039)</td>
<td>2.0 (.079)</td>
<td>1.1 (.044)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.0 (.039)</td>
<td>1.6 (.063)</td>
<td>2.6 (.103)</td>
<td>4 (.158)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.6 (.063)</td>
<td>2.5 (.098)</td>
<td>3.5 (.138)</td>
<td>2.6 (.103)</td>
</tr>
</tbody>
</table>

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

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

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

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

**Change 0 to 1:**
- 47-90-161-20
- 47-90-161-21

**Change 2 to 6:**
- 47-90-101-24
- 47-90-101-25

**Part Number**

See table

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

For black finish and smooth knob options, minimums may apply

www.southco.com/47
47 Captive Screws
Styled knob series · M6 thread size

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

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

Knob: Aluminum, natural or black powder coated

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

Installation Notes
See pages 468-469, 543

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

Knob Height and Screw Projection
(Flare-in style shown)

Dimensions in millimeters (inch) unless otherwise stated

Installation Styles

Press-In Style

Flare-In Style

Floating Style

www.southco.com/47

1-800-453-1692
www.aboveboardelectronics.com
<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>Total Float</th>
<th>Flange Length</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P-1</td>
<td>P-2</td>
</tr>
<tr>
<td>H-1 (79)</td>
<td>13.4 (.53)</td>
<td>0.9 (.036)</td>
<td>0.8 (.03)</td>
<td>1.8 (.070)</td>
<td>1.2 (.05)</td>
<td>7.8 (.31)</td>
</tr>
<tr>
<td>H-2 (79)</td>
<td>13.4 (.53)</td>
<td>0.9 (.036)</td>
<td>0.8 (.03)</td>
<td>1.8 (.070)</td>
<td>1.2 (.05)</td>
<td>7.8 (.31)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.4 (.135)</td>
<td>2.8 (.11)</td>
</tr>
<tr>
<td>19.3 (.76)</td>
<td>12.7 (.50)</td>
<td>0.9 (.03)</td>
<td>1.8 (.070)</td>
<td>6.6 (.260)</td>
<td>6 (.24)</td>
<td>12.6 (.50)</td>
</tr>
<tr>
<td>Floating Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.4 (.135)</td>
<td>4.4 (.17)</td>
</tr>
<tr>
<td>20 (.79)</td>
<td>13.3 (.52)</td>
<td>0.8 (.031)</td>
<td>2.5 (.097)</td>
<td>3.2 (.127)</td>
<td>2.1 (.08)</td>
<td>8.8 (.35)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.7 (.15)</td>
<td>10.4 (.41)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.3 (.21)</td>
<td>12 (.47)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.1 (.08)</td>
<td>8.8 (.35)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.7 (.15)</td>
<td>10.4 (.41)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.3 (.21)</td>
<td>12 (.47)</td>
</tr>
</tbody>
</table>

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

To add a black powder coated finish, change the part number from the table as shown:
- Change 1 to 5: 47-80-102-14
- Change 2 to 6: 47-80-102-24
- Change 4 to 5: 47-90-101-20

For a smooth knob, change the part number from the table as shown:
- Change 0 to 1: 47-90-161-20
- Change 2 to 6: 47-90-101-24

Part Number
See table

All screw part numbers shown in table are for a natural knob finish and a knurled knob.$TORX®$ is a registered trademark of ACUMENT® Intellectual Properties, LLC

For black finish and smooth knob options, minimums may apply.

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

# 47 Captive Screws

**Styled knob series - 4-40 thread size**

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

## Material and Finish

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

**Knob:** Aluminum, natural or black powder coated

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

## Installation Notes

See pages 468-469, 543

## Notes

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

---

## Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 1 Phillips</th>
<th>T10 TORX®</th>
<th>T10 TORX® / Slot Combination</th>
<th>No. 1 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

![Recess Styles](image)

---

## Knob Height and Screw Projection

(Flare-in style shown)

![Knob Height and Screw Projection](image)

**Dimensions in millimeters (inch) unless otherwise stated**

---

## Installation Styles

- **Press-In Style**
- **P.C. Board Style**
- **Flare-In Style**
- **Floating Style**

![Installation Styles](image)

---

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

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Total Float</th>
<th>Flange Length L</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.3</td>
<td>8.3</td>
<td>0.9</td>
<td>0.8</td>
<td>(0.36)</td>
<td>3.8 (0.15)</td>
<td>47-60-101-24</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5</td>
<td>0.22</td>
<td>0.8</td>
<td>(0.10)</td>
<td>7 (0.28)</td>
<td>47-61-101-24</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>7</td>
<td>0.28</td>
<td>0.8</td>
<td>(0.16)</td>
<td>62-101-24</td>
<td>47-62-101-24</td>
</tr>
<tr>
<td></td>
<td>5.6</td>
<td>8.6</td>
<td>0.34</td>
<td>0.8</td>
<td>(0.22)</td>
<td>63-101-24</td>
<td>47-63-101-24</td>
</tr>
</tbody>
</table>

| P.C. Board Style   |             |                        |   |             |                 |                                               |             |
|                    | 11.5        | 8.3                    | 1.6 | 0.8         | (0.061)         | 1.5 (0.06)                                     | 47-65-101-34 |
|                    | 2.5         | 5.5                    | 0.22| 0.8         | (0.10)          | 65-101-34                                      | 47-65-101-34 |
|                    | 4           | 7                      | 0.28| 0.8         | (0.16)          | 65-101-34                                      | 47-65-101-34 |
|                    | 5.6         | 8.6                    | 0.34| 0.8         | (0.22)          | 65-101-34                                      | 47-65-101-34 |

| Flare-In Style     |             |                        |   |             |                 |                                               |             |
|                    | 11.5        | 8.1                    | 0.6 | 0.6         | (0.03)          | 1.041                                         | 47-60-101-24 |
|                    | 2.5         | 5.5                    | 0.22| 0.8         | (0.10)          | 60-101-24                                      | 47-61-101-24 |
|                    | 4           | 7                      | 0.28| 0.8         | (0.16)          | 62-101-24                                      | 47-62-101-24 |
|                    | 5.6         | 8.6                    | 0.34| 0.8         | (0.22)          | 63-101-24                                      | 47-63-101-24 |

| Floating Style     |             |                        |   |             |                 |                                               |             |
|                    | 11.4        | 8.6                    | 2.1 | 0.8         | (0.031)         | 2.101                                         | 47-60-101-24 |
|                    | 3.4         | 13.2                   | 0.8 | 0.8         | (0.031)         | 10-132                                         | 47-61-101-24 |
|                    | 4.2         | 164                    | 3.6 | 0.8         | (0.063)         | 10-164                                         | 47-62-101-24 |

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

To add a black powder coated finish, change the part number from the table as shown:
- Change 1 to 5: 47-80-102-14
- Change 2 to 6: 47-80-102-24
- Change 3 to 7: 47-80-102-34
- Change 4 to 5: 47-80-102-14

For a smooth knob, change the part number from the table as shown:
- Change 0 to 1: 47-90-161-20
- Change 4 to 5: 47-90-101-24

Part Number
See table
All screw part numbers shown in table are for a natural knob finish and a knurled knob
For black finish and smooth knob options, minimums may apply

Request Info
1-800-453-1692
www.aboveboardelectronics.com
47 Captive Screws
Styled knob series · 6-32 thread size

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

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

Knob: Aluminum, natural or black powder coated
Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

Installation Notes
See pages 468-469, 543

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

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T15 TORX®</th>
<th>T15 TORX® / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

Knob Height and Screw Projection
(Flare-in style shown)

Installation Styles

Dimensions in millimeters (inch) unless otherwise stated

Press-In Style
P.C. Board Style
Flare-In Style
Floating Style
Snap-In Style

www.southco.com/47

1-800-453-1692
www.aboveboardelectronics.com
<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Total Float</th>
<th>Flange Length L</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>15.9 (.63)</td>
<td>11.2 (.44)</td>
<td>0.9 (.036)</td>
<td>–</td>
<td>–</td>
<td>0.5 (.02) 5.3 (.21) 47-60-221-24 47-66-211-24</td>
<td>TORX® / Slot Combination Phillips / Slot Combination</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.1 (.08)</td>
<td>6.9 (.27)</td>
<td>7-61-211-24 47-61-211-24</td>
<td>47-61-211-24</td>
<td>47-61-211-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.3 (.21)</td>
<td>10.1 (.40)</td>
<td>47-63-211-24 47-63-211-24</td>
<td>47-63-211-24</td>
<td>47-63-211-24</td>
</tr>
<tr>
<td>P.C. Board Style</td>
<td>14.8 (.58)</td>
<td>10 (.39)</td>
<td>1.6 (.061)</td>
<td>–</td>
<td>–</td>
<td>1.4 (.06) 6.1 (.24) 47-65-211-24 47-65-211-24</td>
<td>TORX® / Slot Combination Phillips / Slot Combination</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11.2 (.44)</td>
<td>9.8 (.38)</td>
<td>7-65-211-24 47-65-211-24</td>
<td>47-65-211-24</td>
<td>47-65-211-24</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>15.3 (.60)</td>
<td>10.4 (.41)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.4 (.015)</td>
<td>1.8 (.07) 1.1 (.04) 6 (.24) 47-10-221-14 47-10-221-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.2 (.125)</td>
<td>4.8 (.189)</td>
<td>1.6 (.062)</td>
<td>3.4 (.135) 2.7 (.11) 7.6 (.30) 47-10-221-14 47-10-221-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.8 (.189)</td>
<td>6.4 (.250)</td>
<td>3.2 (.125)</td>
<td>5 (.19) 5.3 (.21) 47-60-211-24 47-60-211-24</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.4 (.250)</td>
<td>7.9 (.312)</td>
<td>4.8 (.189)</td>
<td>6.1 (.26) 5.9 (.23) 10.8 (.43) 47-10-221-14 47-10-221-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.4 (.015)</td>
<td>1.8 (.07) 2.7 (.11) 7.6 (.30) 47-10-221-14 47-10-221-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.2 (.125)</td>
<td>4.8 (.189)</td>
<td>1.6 (.062)</td>
<td>3.4 (.135) 1.6 (.06) 4.8 (.189) 47-11-221-14 47-11-221-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.8 (.189)</td>
<td>6.4 (.250)</td>
<td>3.2 (.125)</td>
<td>5 (.19) 5.3 (.21) 47-60-211-24 47-60-211-24</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td>Floating Style</td>
<td>15.3 (.60)</td>
<td>10.6 (.42)</td>
<td>–</td>
<td>0.8 (.031)</td>
<td>2.1 (.083)</td>
<td>2.9 (.113) 2.4 (.09) 7.2 (.28) 47-10-211-14 47-10-211-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.8 (.031)</td>
<td>1.6 (.063)</td>
<td>2.9 (.114)</td>
<td>3.7 (.144) 2.4 (.09) 7.2 (.28) 47-10-211-14 47-10-211-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.6 (.063)</td>
<td>2.4 (.094)</td>
<td>3.7 (.146)</td>
<td>4.5 (.176) 4.1 (.16) 8.8 (.35) 47-10-211-14 47-10-211-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td>Snap-In Style</td>
<td>15.3 (.60)</td>
<td>10.6 (.42)</td>
<td>0.5 (.020)</td>
<td>1.0 (.039)</td>
<td>2.0 (.079)</td>
<td>1.1 (.044) 0.8 (.03) 5.6 (.22) 47-60-211-14 47-60-211-14</td>
<td>Phillips Recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.0 (.039)</td>
<td>1.6 (.063)</td>
<td>2.6 (.103)</td>
<td>1.7 (.067) 2.4 (.09) 7.2 (.28) 47-60-211-14 47-60-211-14</td>
<td>Phillips Recess</td>
</tr>
</tbody>
</table>

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

### Dimensions in millimeters (inch) unless otherwise stated

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

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

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

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

Part Number

See table

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

For black finish and smooth knob options, minimums may apply

### Request Info

1-800-453-1692

www.aboveboardelectronics.com

www.southco.com/47
47 Captive Screws
Styled knob series · 8-32 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in, floating and snap-in: Aluminum, natural

Knob: Aluminum, natural or black powder coated

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

Installation Notes
See pages 468-469, 543

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

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T25 T0RX&lt;sup&gt;®&lt;/sup&gt;</th>
<th>T25 T0RX&lt;sup&gt;®&lt;/sup&gt; / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

Knob Height and Screw Projection
(Flare-in style shown)

Unfastened

Unfastened

Fastened

Dimensions in millimeters (inch) unless otherwise stated

Installation Styles

Press-In Style

Flare-In Style

Floating Style

Snap-In Style
### Installation Style

<table>
<thead>
<tr>
<th>Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B Total Float</th>
<th>Flange Length</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In</td>
<td>H-1: 16.2 (64)</td>
<td>H-2: 11.2 (44)</td>
<td>A Min.: 0.9 (0.036)</td>
<td>–</td>
<td>–</td>
<td>0.8 (0.03)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Slotted Recess</td>
<td>47-60-301-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips Recess</td>
<td>47-60-301-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK® Recess</td>
<td>47-60-301-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK®/Slot Combination</td>
<td>47-60-301-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips/Slot Combination</td>
<td>47-60-301-24</td>
</tr>
<tr>
<td>Flare-In</td>
<td>H-1: 15.6 (61)</td>
<td>H-2: 10.5 (41)</td>
<td>A Min.: 1.5 (0.058)</td>
<td>3.2 (0.125)</td>
<td>0.4 (0.015)</td>
<td>1.8 (0.070)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Slotted Recess</td>
<td>47-10-302-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips Recess</td>
<td>47-10-302-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK® Recess</td>
<td>47-10-302-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK®/Slot Combination</td>
<td>47-10-302-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips/Slot Combination</td>
<td>47-10-302-14</td>
</tr>
<tr>
<td>Floating</td>
<td>H-1: 16 (63)</td>
<td>H-2: 11.2 (44)</td>
<td>A Min.: 0.8 (0.031)</td>
<td>1.6 (0.063)</td>
<td>3.1 (0.121)</td>
<td>2.3 (0.09)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Slotted Recess</td>
<td>47-10-304-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips Recess</td>
<td>47-10-304-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK® Recess</td>
<td>47-10-304-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK®/Slot Combination</td>
<td>47-10-304-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips/Slot Combination</td>
<td>47-10-304-14</td>
</tr>
<tr>
<td>Snap-In</td>
<td>H-1: 15.7 (62)</td>
<td>H-2: 11.2 (44)</td>
<td>A Min.: 1.0 (0.039)</td>
<td>1.6 (0.063)</td>
<td>2.6 (0.103)</td>
<td>0.9 (0.03)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Slotted Recess</td>
<td>47-10-306-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips Recess</td>
<td>47-10-306-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK® Recess</td>
<td>47-10-306-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TORK®/Slot Combination</td>
<td>47-10-306-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phillips/Slot Combination</td>
<td>47-10-306-14</td>
</tr>
</tbody>
</table>

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

---

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

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

---

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

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

---

**Part Number**

See table

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

For black finish and smooth knob options, minimums may apply.

---

**Dimensions in millimeters (inch) unless otherwise stated**

**TO RK® / Slot Combination**

**Phillips / Slot Combination**

**www.southco.com/47**
47 Captive Screws
Styled knob series · 10-32 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in, floating and snap-in: Aluminum, natural
Knob: Aluminum, natural or black powder coated
Screw: Hardened carbon steel, zinc plated, chromate, plus sealer

Installation Notes
See pages 468-469, 543

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

Recess Styles

<table>
<thead>
<tr>
<th>Recess Style</th>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T25 TORX®</th>
<th>T25 TORX® / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

Knob Height and Screw Projection

(Flare-in style shown)

Dimensions in millimeters (inch) unless otherwise stated

Installation Styles
### Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Total Float</th>
<th>Flange Length L</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>16.2 (.64)</td>
<td>11.2 (.44)</td>
<td>0.9 (.036)</td>
<td>–</td>
<td>–</td>
<td>0.6 (.02)</td>
<td>47-60-501-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-60-501-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-60-501-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-60-501-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-60-501-24</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>15.6 (.61)</td>
<td>10.5 (.41)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.4 (.015)</td>
<td>1.8 (.070)</td>
<td>47-10-502-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-502-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-502-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-502-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-502-14</td>
</tr>
<tr>
<td>Floating Style</td>
<td>16 (.63)</td>
<td>11.2 (.44)</td>
<td>0.8 (.031)</td>
<td>1.5 (.063)</td>
<td>3.1 (.122)</td>
<td>2.3 (.09)</td>
<td>47-10-504-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-504-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-504-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-504-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-504-14</td>
</tr>
<tr>
<td>Snap-In Style</td>
<td>15.7 (.62)</td>
<td>11.2 (.44)</td>
<td>0.5 (.020)</td>
<td>1 (.039)</td>
<td>2 (.079)</td>
<td>1.1 (.044)</td>
<td>47-10-506-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-506-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-506-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-506-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47-10-506-14</td>
</tr>
</tbody>
</table>
| Part numbers in shaded rows (shown in table) are fully retracting in minimum panel thickness

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

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

**Change 4 to 5:**
- 47-90-101-24
- 47-90-101-25

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

**Change 0 to 1:**
- 47-90-161-20
- 47-90-161-21

**Change 1 to 5:**
- 47-60-501-24
- 47-60-501-24
- 47-60-501-24
- 47-60-501-24
- 47-60-501-24

**Part Number**

**See table**

All screw part numbers shown in table are for a natural knob finish and a knurled knob option. Minimums may apply.

For black finish and smooth knob options, minimums may apply.
47 Captive Screws
Styled knob series · 1/4-20 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in and Floating: Aluminum, natural
Knob: Aluminum, natural or black powder coated

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

Installation Notes
See pages 468-469, 543

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

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T30 TORX®</th>
<th>T30 TORX® / Slot Combination</th>
<th>No. 2 Phillips / Slot Combination</th>
</tr>
</thead>
</table>

Knob Height and Screw Projection
(Flare-in style shown)

Unfastened
Unfastened
Fastened

Dimensions in millimeters (inch) unless otherwise stated

Installation Styles

Press-In Style
Flare-In Style
Floating Style
### Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Total Float</th>
<th>Flange Length</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H-1</td>
<td>H-2</td>
<td>A Min.</td>
<td>A Max.</td>
<td></td>
<td>P-1</td>
<td>P-2</td>
</tr>
<tr>
<td>Press-In Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>13.4</td>
<td>0.9</td>
<td>0.36</td>
<td>0.8</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>19.3</td>
<td>12.7</td>
<td></td>
<td></td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floating Style</td>
<td>20</td>
<td>13.3</td>
<td></td>
<td></td>
<td>2.3</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

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

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

Part Number

See table

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

For black finish and smooth knob options, minimums may apply.

---

**Request Info**

1-800-453-1692

www.aboveboardelectronics.com

---

**TORX®** is a registered trademark of ACUMENT® Intellectual Properties, LLC.
4C Captive Screws
Prism series · M3, M4 and M5 thread size

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

Material and Finish
Knob: PC/ABS
Screw: Hardened carbon steel, zinc plate, chrome, plus sealer
Spring: 300 series stainless steel, passivated
Standoff:
Press-in: Carbon steel, zinc plate, chrome, plus sealer
PCB: Stainless steel
Flare-in and Floating:
Aluminum, natural

Performance Details
Flammability Rating: UL94-V0

Installation Notes
See pages 468-469, 543

Notes
Press-in: Maximum panel hardness 170 HV (85 HRB)
See page 480 for details on ATCA compliant captive screws.

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

www.southco.com/4C
### M3 Thread Size

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>Part Number</th>
<th>Screw Projection Beyond Outer Surface Of Panel</th>
<th>Knob Height†</th>
<th>Total Float</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>0.9 (.036)</td>
<td>-</td>
<td>4C-PH-M3-1P0-K000</td>
<td>0.8 (.03) 3.7 (.15)</td>
<td>11.5 (.45)</td>
<td>0.7</td>
<td>5.6 (.22) (.219 (.89))</td>
</tr>
<tr>
<td></td>
<td>1.6 (.063)</td>
<td>-</td>
<td>4C-PH-M3-1B0-K000</td>
<td>1.5 (.06) 3.8 (.15)</td>
<td>10.9 (.43)</td>
<td>0.7</td>
<td>5.6 (.220 (.89))</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>0.8 (.031) 1.5 (.058) 0.4 (.016)</td>
<td>4C-PH-M3-1F1-K000</td>
<td>0.8 (.03) 3.7 (.15)</td>
<td>11.5 (.45)</td>
<td>0.7</td>
<td>4.8 (.009 (.36))</td>
<td>3.0 (.125 (.96))</td>
</tr>
</tbody>
</table>

### M4 Thread Size

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>L</th>
<th>Part Number</th>
<th>Screw Projection Beyond Outer Surface Of Panel</th>
<th>Knob Height†</th>
<th>Total Float</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>0.9 (.036)†</td>
<td>-</td>
<td>-</td>
<td>4C-PS-M4-1P0-K000</td>
<td>0.5 (.02) 5.6 (.22)</td>
<td>16.3 (.64)</td>
<td>11.3 (.45)</td>
<td>0.6 (.02) (2.9) (.112)</td>
</tr>
<tr>
<td></td>
<td>1.5 (.060)</td>
<td>3.2 (.058)</td>
<td>0.4 (.016)</td>
<td>4C-PS-M4-1F1-K000</td>
<td>0.6 (.02) 5.6 (.22)</td>
<td>16.3 (.64)</td>
<td>11.3 (.45)</td>
<td>0.6 (.02) (2.9) (.112)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>0.8 (.031) 1.6 (.063) 3.1 (.122) 4 (.158)</td>
<td>4C-PS-M4-3T2-K000</td>
<td>3.8 (.15) 8.8 (.35)</td>
<td>16.2 (.64)</td>
<td>0.6 (.02) (2.9) (.112)</td>
<td>4.4 (.165) (1.66)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.6 (.063)</td>
<td>2.4 (.094)</td>
<td>3.9 (.153) 4.8 (.190)</td>
<td>4C-PS-M4-4T3-K000</td>
<td>3.8 (.15) 8.8 (.35)</td>
<td>16.2 (.64)</td>
<td>0.6 (.02) (2.9) (.112)</td>
<td>4.4 (.165) (1.66)</td>
</tr>
</tbody>
</table>

### M5 Thread Size

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Outer Panel Dimensions</th>
<th>B</th>
<th>L</th>
<th>Part Number</th>
<th>Screw Projection Beyond Outer Surface Of Panel</th>
<th>Knob Height†</th>
<th>Total Float</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>0.9 (.036)†</td>
<td>-</td>
<td>-</td>
<td>4C-PS-M5-1P0-K000</td>
<td>0.4 (.2) 5.6 (.22)</td>
<td>16.4 (.65)</td>
<td>11.3 (.45)</td>
<td>0.8 (.03) (2.9) (.112)</td>
</tr>
<tr>
<td></td>
<td>1.5 (.06)</td>
<td>3.2 (.058)</td>
<td>0.4 (.016)</td>
<td>4C-PS-M5-1F1-K000</td>
<td>0.5 (.02) 5.6 (.22)</td>
<td>16.4 (.65)</td>
<td>11.3 (.45)</td>
<td>0.7 (.03) (2.9) (.112)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>0.8 (.031) 1.6 (.063) 3.1 (.122) 4 (.158)</td>
<td>4C-PS-M5-3T2-K000</td>
<td>3.7 (.15) 8.9 (.35)</td>
<td>16.3 (.64)</td>
<td>0.8 (.03) (2.9) (.112)</td>
<td>4.9 (.191 (.96))</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.6 (.063)</td>
<td>2.4 (.094)</td>
<td>3.9 (.153) 4.8 (.190)</td>
<td>4C-PS-M5-4T3-K000</td>
<td>5.3 (.21) 10.5 (.41)</td>
<td>0.8 (.03) (2.9) (.112)</td>
<td>4.9 (.191 (.96))</td>
<td></td>
</tr>
</tbody>
</table>

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

### Part Number

See table

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

### Black
- Black - 000

### Blue
- Blue - 008

### Red
- Red - 013

### Green
- Green - 014

### Your Color
- Contact Southco

---

Dimensions in millimeters (inch) unless otherwise stated
**4C Captive Screws**

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

---

**Material and Finish**

Knob: PC/ABS

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

Spring: 300 series stainless steel, passivated

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

PCB: Stainless steel

Flare-in and Floating: Aluminum, natural

---

**Performance Details**

Flammability Rating: UL94-V0

---

**Installation Notes**

See pages 468-469, 543

---

**Notes**

Press-in: Maximum panel hardness

170 HV (85 HRB)

---

**Knob Height and Screw Projection**

(Press-in style shown)

---

To ensure you receive SOUTHCO® quality parts, look for the segmented circle.
### 4-40 Thread Size

Dimensions in millimeters (inch) unless otherwise stated.

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Outer Panel Dimensions</th>
<th>Part Number</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Knob Height†</th>
<th>Total Float</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A Min.</td>
<td>A Max.</td>
<td>B</td>
<td>Phillips / Slot Combination</td>
<td>P-1</td>
<td>P-2</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>0.9†</td>
<td>0.36</td>
<td>–</td>
<td>4C-PH-04-1P0-K000</td>
<td>11.5 (0.45)</td>
<td>8.6 (0.34)</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>0.36</td>
<td>–</td>
<td>4C-PH-04-2P0-K000</td>
<td>2.5 (0.10)</td>
<td>5.3 (0.21)</td>
</tr>
<tr>
<td>P.C. Board Style</td>
<td>1.6</td>
<td>0.63</td>
<td>–</td>
<td>4C-PH-04-1B0-K000</td>
<td>10.9 (0.43)</td>
<td>8.5 (0.33)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>0.8</td>
<td>0.031</td>
<td>1.5</td>
<td>4C-PH-04-1F1-K000</td>
<td>11.5 (0.45)</td>
<td>8.6 (0.34)</td>
</tr>
</tbody>
</table>

6-32 Thread Size

Dimensions in millimeters (inch) unless otherwise stated.

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Outer Panel Dimensions</th>
<th>Part Number</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Knob Height†</th>
<th>Total Float</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A Min.</td>
<td>A Max.</td>
<td>B</td>
<td>Phillips / Slot Combination</td>
<td>P-1</td>
<td>P-2</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>0.9†</td>
<td>0.36</td>
<td>–</td>
<td>4C-PS-06-1P0-K000</td>
<td>15.5 (0.61)</td>
<td>11.3 (0.44)</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>0.36</td>
<td>–</td>
<td>4C-PS-06-2P0-K000</td>
<td>2.3 (0.09)</td>
<td>6.6 (0.26)</td>
</tr>
<tr>
<td>P.C. Board Style</td>
<td>1.5</td>
<td>0.63</td>
<td>–</td>
<td>4C-PS-06-1B0-K000</td>
<td>14.5 (.51)</td>
<td>10 (0.39)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>1.5</td>
<td>0.031</td>
<td>3.2</td>
<td>4C-PS-06-1F1-K000</td>
<td>15.5 (.61)</td>
<td>11.3 (.44)</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>0.031</td>
<td>3.2</td>
<td>4C-PS-06-2F1-K000</td>
<td>2.3 (.09)</td>
<td>6.6 (0.26)</td>
</tr>
</tbody>
</table>

10-32 Thread Size

Dimensions in millimeters (inch) unless otherwise stated.

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Outer Panel Dimensions</th>
<th>Part Number</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Knob Height†</th>
<th>Total Float</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A Min.</td>
<td>A Max.</td>
<td>B</td>
<td>L</td>
<td>Phillips / Slot Combination</td>
<td>P-1</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>0.9†</td>
<td>0.36</td>
<td>–</td>
<td>–</td>
<td>4C-PS-10-1P0-K000</td>
<td>5.6 (0.22)</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>0.36</td>
<td>–</td>
<td>–</td>
<td>4C-PS-10-2P0-K000</td>
<td>7.1 (0.28)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>1.5</td>
<td>0.58</td>
<td>3.2</td>
<td>0.4</td>
<td>4C-PS-10-1F1-K000</td>
<td>5.6 (0.22)</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>0.58</td>
<td>3.2</td>
<td>0.4</td>
<td>4C-PS-10-2F1-K000</td>
<td>7.1 (0.28)</td>
</tr>
<tr>
<td>Floating Style</td>
<td>0.8</td>
<td>0.33</td>
<td>3.1</td>
<td>1.8</td>
<td>4C-PS-10-3T2-K000</td>
<td>8.8 (0.35)</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>0.64</td>
<td>3.9</td>
<td>4.8</td>
<td>4C-PS-10-3T3-K000</td>
<td>10.4 (0.41)</td>
</tr>
</tbody>
</table>

Part Number

See table

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

Notes: *F indicates the maximum float in the unfastened position. † For panels thinner than 0.9 (0.036), contact Southco.
**47 Captive Screws**
Restricted access series · M4 and M5 thread size

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

**Material and Finish**

- **Ferrule:** Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
  Flare-in and Floating: Aluminum, natural
- **Knob:** Aluminum, natural or black organic coating
- **Screw:** Hardened carbon steel, zinc plate, chromate, plus sealer

**Installation Notes**
See pages 468-469, 543

---

**Recess Styles**

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T25 TORX®</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**ACTUAL SIZE**

---

**Knob Height and Screw Projection**

*Press-in style shown*

- **Unfastened**
  - **A Min.**
  - **A Max.**
  - **H-1**
  - **P-1**
- **Fastened**
  - **H-2**
  - **P-2**

Dimensions in millimeters (inch) unless otherwise stated

---

**Installation Styles**

<table>
<thead>
<tr>
<th>Press-In Style</th>
<th>Flare-In Style</th>
<th>Floating Style</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

---

**Material and Finish**

- **Ferrule:**
  - Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
  - Flare-in and Floating: Aluminum, natural
- **Knob:** Aluminum, natural or black organic coating
- **Screw:** Hardened carbon steel, zinc plate, chromate, plus sealer

**Installation Notes**
See pages 468-469, 543
47 Captive Screws
Restricted access series · M4 and M5 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in and Floating: Aluminum, natural
Knob: Aluminum, natural or black organic coating
Screw: Hardened carbon steel, zinc plate, chromate, plus sealer

Installation Notes
See pages 468-469, 543

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T25 TORX®</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Recess Slotted" /></td>
<td><img src="image" alt="Recess Phillips" /></td>
<td><img src="image" alt="Recess TORX" /></td>
</tr>
</tbody>
</table>

Knob Height and Screw Projection
(Press-in style shown)

<table>
<thead>
<tr>
<th>Unfastened</th>
<th>Unfastened</th>
<th>Fastened</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Unfastened Slotted" /></td>
<td><img src="image" alt="Unfastened Phillips" /></td>
<td><img src="image" alt="Fastened TORX" /></td>
</tr>
</tbody>
</table>

A Max. | A Min. | H-1 | P-1 | H-2

Dimensions in millimeters (inch) unless otherwise stated

Installation Styles

<table>
<thead>
<tr>
<th>Press-In Style</th>
<th>Flare-In Style</th>
<th>Floating Style</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Press-In" /></td>
<td><img src="image" alt="Flare-In" /></td>
<td><img src="image" alt="Floating" /></td>
</tr>
</tbody>
</table>

Material and Finish

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

Knob: Aluminum, natural or black organic coating

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

Installation Notes

See pages 468-469, 543

Captive Screws

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

Material and Finish

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

Knob: Aluminum, natural or black organic coating

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

Installation Notes

See pages 468-469, 543
### M4 Thread Size

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height</th>
<th>Outer Panel Dimensions</th>
<th>Dimension B*</th>
<th>Flange Length</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H-1 H-2</td>
<td>A Min.</td>
<td>A Max.</td>
<td></td>
<td>P-1</td>
<td>P-2</td>
</tr>
<tr>
<td>Press-In Style</td>
<td>18.5 (.73)</td>
<td>14</td>
<td>(.55)</td>
<td>0.9 (.036)</td>
<td></td>
<td>~</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>0.7 (.03)</td>
<td>5.6 (.22)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>2.3 (.09)</td>
<td>7.2 (.28)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>3.8 (.15)</td>
<td>8.7 (.34)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>5.4 (.21)</td>
<td>10.3 (.41)</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>18 (13)</td>
<td>13</td>
<td>(.51)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>0.6 (.023)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>3.1 (.12)</td>
<td>7.9 (.31)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>4.1 (.16)</td>
<td>8.9 (.35)</td>
</tr>
<tr>
<td>Floating Style</td>
<td>18 (13)</td>
<td>14</td>
<td>(.55)</td>
<td>0.1 (.001)</td>
<td>0.8 (.031)</td>
<td>2.3 (.09)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>3.4 (.13)</td>
<td>8.2 (.32)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>5.4 (.21)</td>
<td>10.2 (.40)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>2.4 (.09)</td>
<td>7.2 (.28)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>3.4 (.13)</td>
<td>8.2 (.32)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>~</td>
<td>~</td>
<td>5.4 (.21)</td>
<td>10.2 (.40)</td>
</tr>
</tbody>
</table>

Dimensions in millimeters (inch) unless otherwise stated.

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

Change 2 to 6:
- 4 7-80-102-22
- 47-80-102-62

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

Part Number
See table
All screw part numbers shown in table are for a natural finish. For black finish minimums may apply.
47 Captive Screws
Restricted access series · 6-32 and 10-32 thread size

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

Material and Finish
Ferrule:
Press-in: Hardened carbon steel, zinc plate, chromate, plus sealer
Flare-in and Floating: Aluminum, natural
Knob: Aluminum, natural or black organic coating
Screw: Hardened carbon steel, zinc plate, chromate, plus sealer

Installation Notes
See pages 468-469, 543

Recess Styles

<table>
<thead>
<tr>
<th>Slotted</th>
<th>No. 2 Phillips</th>
<th>T15 TORX® - 6-32</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
</tbody>
</table>

Knob Height and Screw Projection
(Press-in style shown)

![Image](image4.png)

Installation Notes
Dimensions in millimeters (inch) unless otherwise stated

Installation Styles

- Press-In Style
- Flare-In Style
- Floating Style

![Image](image5.png)

www.southco.com/47

Above Board Electronics, Inc.

Request Info

1-800-453-1692

www.aboveboardelectronics.com
47 Captive Screws
Restricted access series · 6-32 and 10-32 thread size

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

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

Knob: Aluminum, natural or black organic coating

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

Installation Notes
See pages 468-469, 543

Dimensions in millimeters (inch) unless otherwise stated
### 6-32 Thread Size

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height*</th>
<th>Outer Panel Dimensions</th>
<th>Dimension B*</th>
<th>Flange Length L</th>
<th>Screw Projection Beyond Outer Surface Of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>18.5 (.73)</td>
<td>14 (.54)</td>
<td>0.9 (.036)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>3.2 (.125)</td>
<td>4.8 (.189)</td>
<td>0.6 (.023)</td>
<td>1.8 (.07)</td>
<td>2.3 (.09)</td>
<td>47-60-201-22</td>
</tr>
<tr>
<td></td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>3.1 (.12)</td>
<td>6.2 (.24)</td>
<td>47-60-211-22</td>
<td>47-60-241-22</td>
</tr>
<tr>
<td></td>
<td>5.3 (.21)</td>
<td>10.1 (.41)</td>
<td>47-60-212-22</td>
<td></td>
<td>47-60-241-22</td>
<td>47-60-241-22</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>18 (.70)</td>
<td>13 (.51)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>3.4 (.14)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>3.2 (.125)</td>
<td>4.8 (.189)</td>
<td>3.1 (.12)</td>
<td>6.2 (.24)</td>
<td>47-10-202-22</td>
<td>47-10-224-22</td>
</tr>
<tr>
<td></td>
<td>6.1 (.24)</td>
<td>10.9 (.43)</td>
<td>47-10-204-22</td>
<td></td>
<td>47-10-224-22</td>
<td>47-10-224-22</td>
</tr>
<tr>
<td>Floating Style</td>
<td>18 (.70)</td>
<td>14 (.54)</td>
<td>0.1 (.001)</td>
<td>0.8 (.031)</td>
<td>2.3 (.09)</td>
<td>47-60-501-22</td>
</tr>
<tr>
<td></td>
<td>8.2 (.32)</td>
<td>3.4 (.13)</td>
<td>47-60-521-22</td>
<td></td>
<td>47-60-541-22</td>
<td>47-60-541-22</td>
</tr>
<tr>
<td></td>
<td>2.4 (.09)</td>
<td>7.2 (.28)</td>
<td>47-61-501-22</td>
<td></td>
<td>47-61-541-22</td>
<td>47-61-541-22</td>
</tr>
<tr>
<td></td>
<td>3.4 (.13)</td>
<td>8.2 (.32)</td>
<td>47-61-521-22</td>
<td></td>
<td>47-61-541-22</td>
<td>47-61-541-22</td>
</tr>
<tr>
<td></td>
<td>3.4 (.13)</td>
<td>8.2 (.32)</td>
<td>47-61-542-22</td>
<td></td>
<td>47-61-542-22</td>
<td>47-61-542-22</td>
</tr>
</tbody>
</table>

### 10-32 Thread Size

<table>
<thead>
<tr>
<th>Installation Style</th>
<th>Knob Height*</th>
<th>Outer Panel Dimensions</th>
<th>Dimension B*</th>
<th>Flange Length L</th>
<th>Screw Projection Beyond Outer Surface Of Panel</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press-In Style</td>
<td>18.5 (.73)</td>
<td>14 (.54)</td>
<td>0.9 (.036)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>3.2 (.125)</td>
<td>4.8 (.189)</td>
<td>0.6 (.023)</td>
<td>1.8 (.07)</td>
<td>2.3 (.09)</td>
<td>47-60-501-22</td>
</tr>
<tr>
<td></td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>3.1 (.12)</td>
<td>6.2 (.24)</td>
<td>47-10-502-22</td>
<td>47-10-522-22</td>
</tr>
<tr>
<td></td>
<td>5.4 (.21)</td>
<td>10.3 (.41)</td>
<td>47-10-524-22</td>
<td></td>
<td>47-10-524-22</td>
<td>47-10-524-22</td>
</tr>
<tr>
<td>Flare-In Style</td>
<td>18 (.70)</td>
<td>13 (.51)</td>
<td>1.5 (.058)</td>
<td>3.2 (.125)</td>
<td>3.4 (.14)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>3.2 (.125)</td>
<td>4.8 (.189)</td>
<td>3.1 (.12)</td>
<td>6.2 (.24)</td>
<td>47-11-504-22</td>
<td>47-11-522-22</td>
</tr>
<tr>
<td></td>
<td>6.1 (.24)</td>
<td>10.9 (.43)</td>
<td>47-11-524-22</td>
<td></td>
<td>47-11-524-22</td>
<td>47-11-524-22</td>
</tr>
<tr>
<td>Floating Style</td>
<td>18 (.70)</td>
<td>14 (.54)</td>
<td>0.1 (.001)</td>
<td>0.8 (.031)</td>
<td>2.3 (.09)</td>
<td>47-60-501-22</td>
</tr>
<tr>
<td></td>
<td>8.2 (.32)</td>
<td>3.4 (.13)</td>
<td>47-60-521-22</td>
<td></td>
<td>47-60-541-22</td>
<td>47-60-541-22</td>
</tr>
<tr>
<td></td>
<td>2.4 (.09)</td>
<td>7.2 (.28)</td>
<td>47-61-501-22</td>
<td></td>
<td>47-61-541-22</td>
<td>47-61-541-22</td>
</tr>
<tr>
<td></td>
<td>3.4 (.13)</td>
<td>8.2 (.32)</td>
<td>47-61-521-22</td>
<td></td>
<td>47-61-541-22</td>
<td>47-61-541-22</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Change</th>
<th>New Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>47-80-102-22</td>
<td>2 to 6</td>
<td>47-80-102-22</td>
</tr>
</tbody>
</table>

Part Number

See table

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

For black finish minimums may apply
# 47/4C Captive Screws

## Panel preparation and installation

### Installation Notes

1. Prepare panel as shown. Top edge of hole should be sharp.
2. Press captive screw into panel until ferrule is installed as shown.
3. Installation closer to the panel edge requires a fixture to constrain the panel edges.

### Notes

Recommended minimum distance from edge of panel to centerline of hole is 1.5 x Ø D.

### Performance Details

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

### P.C. Board Style

- **Thread Size**
  - M3 or 4-40: 5.8 +0.03 / -0.05 (0.219 / -0.020)
  - M3.5 or 6-32: 6.4 +0.03 / -0.05 (0.250 / -0.020)
  - M4 or 8-32: 8.0 +0.04 / -0.06 (0.315 / -0.024)
  - M5 or 10-32: 8.5 +0.04 / -0.06 (0.343 / -0.024)
  - M6 or 1/4-20: 9.0 +0.03 / -0.05 (0.355 / -0.020)

- **Clearance Hole Ø Z**
  - M3 or 4-40: 3.2 ±0.2 (.125)
  - M3.5 or 6-32: 3.7 ±0.2 (.146)
  - M4 or 8-32: 4.4 ±0.2 (.173)
  - M5 or 10-32: 5.2 ±0.2 (.205)
  - M6 or 1/4-20: 6.2 ±0.2 (.260)

### Notes:

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

### Flare-In Style

- **Thread Size**
  - M3 or 4-40: 4.8 +0.05 / -0.05 (0.187 / -0.020)
  - M3.5 or 6-32: 5.4 +0.05 / -0.05 (0.213 / -0.020)
  - M4 or 8-32: 6.8 +0.06 / -0.08 (0.266 / -0.031)
  - M5: 6.8 +0.06 / -0.08 (0.266 / -0.031)
  - M6 or 1/4-20: 8.2 +0.07 / -0.05 (0.323 / -0.020)

- **Tool Part Number**
  - M3 or 4-40: 47-104
  - M3.5 or 6-32: 47-106
  - M4 or 8-32: 47-108
  - 10-32: 47-110
  - M5: 47-115
  - M6 or 1/4-20: 47-125

### Thread Size Ø D

- M3 or 4-40
- M3.5 or 6-32
- M4 or 8-32
- M5
- M6 or 1/4-20

### Installation Force

- 1600 N (350 lbf) to 2500 N (550 lbf)

- **Installation force depends on thread size**

### Notes

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

Panel preparation 1

Panel preparation 2

Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Tool Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 or 4-40</td>
<td>47-04</td>
</tr>
<tr>
<td>M3.5 or 6-32</td>
<td>47-06</td>
</tr>
<tr>
<td>M4 or 8-32</td>
<td>47-08</td>
</tr>
<tr>
<td>M5</td>
<td>47-05</td>
</tr>
<tr>
<td>10-32</td>
<td>47-10</td>
</tr>
<tr>
<td>M6 or 1/4-20</td>
<td>47-25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Ø D +0 .003 (-.001)</th>
<th>Counterbore Min. Ø C</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 or 4-40</td>
<td>6.4 (.250)</td>
<td>9.4 (.375)</td>
</tr>
<tr>
<td>M3.5 or 6-32</td>
<td>7.2 (.283)</td>
<td>10.5 (.413)</td>
</tr>
<tr>
<td>M4 or 8-32</td>
<td>8.8 (.346)</td>
<td>12 (.469)</td>
</tr>
<tr>
<td>M5 or 10-32</td>
<td>8.8 (.346)</td>
<td>12 (.469)</td>
</tr>
<tr>
<td>M6 or 1/4-20</td>
<td>10.5 (.413)</td>
<td>13.5 (.531)</td>
</tr>
</tbody>
</table>

Snap-In Style

Panel preparation 1

Panel preparation 2

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Ø D +0 .008 -0.03</th>
<th>Counterbore Min. Ø C</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3.5 or 6-32</td>
<td>6.4 (.250)</td>
<td>7.5 (.295)</td>
</tr>
<tr>
<td>M4 or 8-32</td>
<td>6.4 (.250)</td>
<td>7.5 (.295)</td>
</tr>
<tr>
<td>M5 or 10-32</td>
<td>6.4 (.250)</td>
<td>7.5 (.295)</td>
</tr>
</tbody>
</table>

Installation Notes

Floating and Snap-in Style:
Panel preparation 1:
Requires space between inner and outer panels.
Specify the fastener for panel thickness A to fall between the range A Minimum to A Maximum:
gap = B - A outer panel thickness
Panel preparation 2:
Counter bore the panel
(B = Minimum panel thickness) to a thickness (A) between the range of A Minimum and A Maximum
Minimum bore depth = panel thickness - A Maximum
For gap = Ø, panel thickness must be ≥ to B value (before counterbore) for the given part number

Notes
B and A Maximum values are provided in the corresponding fastener selection tables for each part number
If holes are drilled, top edge of hole should be chamfered
47-SM Captive Screws
Styled knob series · Surface Mount Technology (SMT) Style

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

Material and Finish
Ferrule: Steel, Tin plated
Knob: Aluminum, natural
Screw: Hardened carbon steel, zinc plated, chromate, plus sealer
Internal spring: 300 series stainless steel passivated
Plug: Silicone rubber

Installation Notes
Visit www.southco.com for additional installation guidelines
To ensure you receive SOUTHCO® quality parts, look for the segmented circle.

Part Number
See table

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

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

Knob Height and Screw Projection
Unfastened
- Total Float of Screw in Ferrule

Fastened

PC Board Preparation
- Soldering Pad surface area
- Screw as Shipped in Reel Pack or Tray Pack
- Polyimide tape patch on top surface of screw for vacuum pick up

47 Captive Screws
Styled knob series - SMT Style

Part Number
Specify Package
Indicate package option with last digit of the part number

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

Knob Height and Screw Projection

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

Dimensions in millimeters (inch) unless otherwise stated

Other options available. For complete details on variety, part numbers, installation and specification, go to www.southco.com/47

Request Info
www.aboveboardelectronics.com
### Recess Styles

| No. 2 Phillips Recess (M3,4-40) | No. 2 Phillips / Slot Recess (6-32) | T10 TORK® / Slot Combination (M3,4-40) | T15 TORK®/Slot Combination (6-32) |

### Knob Height and Screw Projection

Unfastened

- F* Total float of screw in ferrule

Fastened

- Screw as shipped in reel pack or tray pack

### PC Board Preparation

- Soldering Pad surface area
- Screw as shipped in reel pack or tray pack

- Polyimide tape patch on top surface of screw for vacuum pick up

### Material and Finish

- Standoff: Steel, Tin plated
- Knob: High heat resistant plastic
- Screw: Hardened carbon steel, zinc plated, chrome plus sealer
- Internal spring: 300 series stainless steel passivated
- Plug: Silicone rubber

### Installation Notes

Visit www.southco.com for additional installation guidelines

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

### Part Number

**Specify Package**

- Indicate package option with last digit of the part number

**Example**

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

**Specify Color**

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

**Example**

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

**Dimensions in millimeters (inch) unless otherwise stated**

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Part Number (Reel package shown)</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 x 0.5</td>
<td>4C-SM-3111-K000-R / 4C-SM-3411-K000-R</td>
<td>Ø 8.6 (.34) 3.3 (.13) 5.5 (.22) 9.7 (.38) 5.5 (.22) 9.7 (.38) 7.6 (.30) 0.7 (.03) 5.6 (.22) 8.6 (.34) 5.6 +0.08/0 (.220 +.003/-.000)</td>
</tr>
<tr>
<td>4-40</td>
<td>4C-SM-1111-K000-R / 4C-SM-1411-K000-R</td>
<td>Ø 8.6 (.34) 3.3 (.13) 5.5 (.22) 9.7 (.38) 5.5 (.22) 9.7 (.38) 7.6 (.30) 0.7 (.03) 5.6 (.22) 8.6 (.34) 5.6 +0.08/0 (.220 +.003/-.000)</td>
</tr>
<tr>
<td>6-32</td>
<td>4C-SM-2311-K000-R / 4C-SM-2411-K000-R</td>
<td>Ø 16.3 (.64) 11.7 (.46) 6.1 (.24) 6.2 (.25) 8.1 (.32) 0.8 (.03) 6.4 (.25) 10.2 (.40) 6.4 +0.08/0 (.252 +.003/-.000)</td>
</tr>
</tbody>
</table>

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

www.southco.com/4C

---

**For installation to PC Board material utilizing surface mount technology**

**Designate access points with color**

**Color match captive screws to your industrial design**

**High strength screw for use with high torque drivers**

**Material and Finish**

- Standoff: Steel, Tin plated
- Knob: High heat resistant plastic
- Screw: Hardened carbon steel, zinc plated, chrome plus sealer
- Internal spring: 300 series stainless steel passivated
- Plug: Silicone rubber

**Installation Notes**

Visit www.southco.com for additional installation guidelines

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

**Part Number**

See table

---

**Contact Southco**

**Request Info**

1-800-453-1692

www.aboveboardelectronics.com
# 52-SM Captive Screws

**Miniature series · Surface Mount Technology (SMT) Style**

- For installation to PC Board material utilizing surface mount technology
- Smaller footprint for limited space applications
- Heat treated steel screw for optimum strength

## Material and Finish

- **Screw:** Hardened carbon steel, zinc plated, chromate, plus sealer
- **Internal spring:** 300 series stainless steel, passivated
- **Standoff:** Steel, Tin plated
- **Plug:** Silicone rubber

## Installation Notes

Visit www.southco.com for additional installation guidelines

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

## Part Number

- **See table**

---

### Screws Height and Screw Projection

**Unfastened**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>øB</th>
<th>øE</th>
<th>No. 2 Phillips / Slot Combination</th>
<th>(Total float of screw in standoff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fastened**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>øB</th>
<th>øE</th>
<th>No. 2 Phillips / Slot Combination</th>
<th>(Total float of screw in standoff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PC Board Preparation

- **Soldering Pad:** Surface mount technology
- **Smaller footprint for limited space applications**
- **Heat treated steel screw for optimum strength**

**Material and Finish**

- **Screw:** Hardened carbon steel, zinc plated, chromate, plus sealer
- **Internal spring:** 300 series stainless steel, passivated
- **Standoff:** Steel, Tin plated
- **Plug:** Silicone rubber

**Installation Notes**

Visit www.southco.com for additional installation guidelines

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

**Part Number**

- **See table**

---

### Thread Size

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Part Number (Reel package shown)</th>
<th>øB</th>
<th>øE</th>
<th>No. 2 Phillips / Slot Combination</th>
<th>(Total float of screw in standoff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 x 0.5</td>
<td>52-SM-1311-K-R 52-SM-1311-N-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>52-SM-1411-K-R 52-SM-1411-N-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-40</td>
<td>52-SM-3311-K-R 52-SM-3311-N-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>52-SM-3411-K-R 52-SM-3411-N-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-32</td>
<td>52-SM-2311-K-R 52-SM-2311-N-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>52-SM-2411-K-R 52-SM-2411-N-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions in millimeters (inch) unless otherwise stated**

**Other options available. For complete details on variety, part numbers, installation and specification, go to www.southco.com/52**

---

**Request Info**

[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)
Southco Surface Mounted Technology (SMT) Captive Screws include installation and packaging features for installation onto PC Boards during the Reflow Process as a surface mounted device (SMD).

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

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

### Installation Features

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

<table>
<thead>
<tr>
<th>Screw as Shipped in Reel or Tray Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymide tape patch on top surface of screw for vacuum pick up</td>
</tr>
<tr>
<td>Packed with Plug</td>
</tr>
</tbody>
</table>

### Preparing the PC Board to accept SMT Captive Screws

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

### Packaging Features/Options

- Tray Pack
- Reel Pack

<table>
<thead>
<tr>
<th>Packing Features/Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tray Pack</td>
</tr>
<tr>
<td>Reel Pack</td>
</tr>
</tbody>
</table>

### Reflow Process

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

---

Southco Surface Mounted Technology (SMT) Captive Screws include installation and packaging features for installation onto PC Boards during the Reflow Process as a surface mounted device (SMD).
52 Captive Screws
Miniature series · Flare-in style

- Smaller footprint for limited space applications
- Heat treated steel screw for optimum strength

Material and Finish
Screw: Hardened carbon steel, zinc plated, chromate, plus sealer
Spring: 300 series stainless steel, passivated
Standoff: Aluminum natural
Installation tool: Hardened carbon steel, zinc plated, chromate, plus sealer

Installation Notes
1. Prepare panel as shown
2. Use light pressure to flare standoff, assuring parallel surfaces on the punch and installation tool

Part Number
See table

Recess Styles
Phillips / Slot combination
TORX® / Slot combination

Phillips / Slot Recess
No. 2 Phillips
T15 TORX® (M3.4-40,6-32)
T25 TORX® (M4)

Knob Height and Screw Projection
Unfastened
Fastened

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

Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Panel Thickness</th>
<th>Part Number</th>
<th>Panel Preparation</th>
<th>Tool Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-40</td>
<td>0.8 (0.031)</td>
<td>52-19-11-4</td>
<td>Min.</td>
<td>47-104</td>
</tr>
<tr>
<td></td>
<td>2.4 (0.094)</td>
<td>52-17-11-4</td>
<td>Max.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-14-11-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-18-11-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-32</td>
<td>1.5 (0.058)</td>
<td>52-29-21-4</td>
<td>Min.</td>
<td>47-106</td>
</tr>
<tr>
<td></td>
<td>3.2 (0.125)</td>
<td>52-27-21-4</td>
<td>Max.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-24-21-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-28-21-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M3 x 0.5</td>
<td>0.8 (0.031)</td>
<td>52-39-11-4</td>
<td>Min.</td>
<td>47-104</td>
</tr>
<tr>
<td></td>
<td>2.4 (0.094)</td>
<td>52-37-11-4</td>
<td>Max.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-34-11-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-38-11-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M4 x 0.7</td>
<td>1.5 (0.058)</td>
<td>52-49-21-4</td>
<td>Min.</td>
<td>47-106</td>
</tr>
<tr>
<td></td>
<td>3.2 (0.125)</td>
<td>52-47-21-4</td>
<td>Max.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-44-21-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52-48-21-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Subtract .25 (.01) from Ø B for smooth head style.

www.southco.com/52

Request Info

www.aboveboardelectronics.com

1-800-453-1692
52 Captive Screws
Miniature series · Press-in style

Ress Styles

Dimensions in millimeters (inch) unless otherwise stated

- Smaller footprint for limited space applications
- Heat treated steel screw for optimum strength

Material and Finish
Screw: Hardened carbon steel, zinc plated, chromate, plus sealer
Spring: 300 series stainless steel, passivated
Standoff: Carbon steel, zinc plated, chromate, plus sealer

Installation Notes
For use in most aluminum or in low carbon steels that are 1/4 hard or softer

Knob Height and Screw Projection

Notes: Recommended minimum distance from edge of panel to centerline of hole is 1.5 x Ø D for press-in version.

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

Knob Height and Screw Projection

Notes: Recommended minimum distance from edge of panel to centerline of hole is 1.5 x Ø D for press-in version.

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

Part Number
See table

See page 543 for additional installation guidelines

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Knurled Head</th>
<th>Smooth Head</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phillips / Slotted</td>
<td>TORX® / Slotted</td>
<td>Phillips / Slotted</td>
</tr>
<tr>
<td>Ø B</td>
<td>C</td>
<td>Ø E</td>
<td>F*</td>
</tr>
<tr>
<td>4-40</td>
<td>52-19-51-4</td>
<td>52-17-51-4</td>
<td>52-1A-51-4</td>
</tr>
<tr>
<td>6-32</td>
<td>52-29-51-4</td>
<td>52-27-51-4</td>
<td>52-2A-51-4</td>
</tr>
<tr>
<td>M3 X 0.5</td>
<td>52-39-51-4</td>
<td>52-37-51-4</td>
<td>52-3A-51-4</td>
</tr>
<tr>
<td>M4 X 0.7</td>
<td>52-49-51-4</td>
<td>52-47-51-4</td>
<td>52-4A-51-4</td>
</tr>
</tbody>
</table>

Notes: Recommended minimum distance from edge of panel to centerline of hole is 1.5 x Ø D for press-in version.

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

See page 543 for additional installation guidelines

ACTUAL SIZE
52 Overmold Captive Screws
Miniature series · Flare-in style

- Smaller footprint for limited space applications
- Heat treated steel screw for optimum strength
- Designate access points with color
- Color match captive screws to your industrial design

Material and Finish
Screw: Hardened carbon steel, zinc plated, chromate, plus sealer
Spring: 300 series stainless steel, passivated
Standoff: Aluminum natural
Knob: PC/ABS
Installation tool: Hardened carbon steel, zinc plated, chromate, plus sealer

Performance Details
Flammability Rating: UL94-VO

Installation Notes
1. Prepare panel as shown
2. Use light pressure to flare standoff, assuring parallel surfaces on the punch and installation tool

Part Number
See table

Dimensons in millimeters (inch) unless otherwise stated

Recess Styles*

- Phillips / Slot combination
- T15 TORX® / Slot combination
- Phillips / Slot Recess No. 2 Phillips
- T25 TORX® (M3,4-40.6-32)

Panel thickness

Knob Height and Screw Projection

Unfastened (Total float of screw in standoff)

Fastened

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

Specifying Color: To indicate color, change the last three digits of the part number
Example: 52-11-11-4-000 Black, 52-11-14-013 Red

www.southco.com/52

TORX is a registered trademark of ACUMENT® Intellectual Properties, LLC
## 52 Overmold Captive Screws

**Miniature series · Press-in style**

- **Smaller footprint for limited space applications**
- **Heat treated steel screw for optimum strength**
- **Designate access points with color**
- **Color match captive screws to your industrial design**

### Material and Finish

Screw: Hardened carbon steel, zinc plated, chromate, plus sealer
Spring: 300 series stainless steel, passivated
Standoff: Carbon steel, zinc plated, chromate, plus sealer
Knob: PC/ABS

### Performance Details

Flammability Rating: UL94-VO

### Installation Notes

For use in most aluminum or in low carbon steels that are 1/4 hard or softer. Visit www.southco.com for more information.

### Part Number

See table

Visit www.southco.com for additional installation guidelines

---

### Dimensions in millimeters (inch) unless otherwise stated

#### Recess Styles*

<table>
<thead>
<tr>
<th>Style</th>
<th>Phillips / Slot combination</th>
<th>T0RX® / Slot combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Phillips / Slot recess No. 2 Phillips</td>
<td>T15 T0RX® (M3.4-40.6-32)</td>
</tr>
<tr>
<td></td>
<td>T25 T0RX® (M4)</td>
<td></td>
</tr>
</tbody>
</table>

---

### Specifying Color:

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

**Example: 52-11-4-000 Black, 52-11-4-013 Red**

---

### Knob Height and Screw Projection

#### Unfastened

( Total float of screw in standoff)

#### Fastened

Notes: Recommended minimum distance from edge of panel to centerline of hole is 1.5 x Ø D for press-in version.

### Notes:

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

---

### Thread Size

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Part Number</th>
<th>Knurled Head</th>
<th>Smooth Head</th>
<th>B Knurled Head</th>
<th>B Smooth Head</th>
<th>C</th>
<th>Ø E</th>
<th>F*</th>
<th>G</th>
<th>H-1</th>
<th>H-2</th>
<th>Ø J</th>
<th>P-1</th>
<th>P-2</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-40</td>
<td>52-11-51-4-000*</td>
<td>52-15-51-4-000*</td>
<td>52-16-51-4-000*</td>
<td>8.1 (32)</td>
<td>7.8 (31)</td>
<td>7.9 (31)</td>
<td>6.4 (25)</td>
<td>6.0 (25)</td>
<td>5.9 (21)</td>
<td>9.6 (38)</td>
<td>5.2 (17)</td>
<td>0.9 (0.08)</td>
<td>5.3 (0.21)</td>
<td>5.56 (0.219)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>52-13-51-4-000*</td>
<td>52-16-51-4-000*</td>
<td>8.8 (33)</td>
<td>8.5 (33)</td>
<td>8.6 (34)</td>
<td>7.2 (28)</td>
<td>0.7 (28)</td>
<td>2.5 (1)</td>
<td>14.5 (50)</td>
<td>9.6 (38)</td>
<td>5.2 (17)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.35 (0.250)</td>
<td></td>
</tr>
<tr>
<td>6-32</td>
<td>52-29-51-4-000</td>
<td>52-30-51-4-000</td>
<td>52-28-51-4-000</td>
<td>8.1 (32)</td>
<td>7.8 (31)</td>
<td>7.9 (31)</td>
<td>6.4 (25)</td>
<td>0.6 (25)</td>
<td>2.5 (1)</td>
<td>15.5 (61)</td>
<td>9.6 (38)</td>
<td>5.2 (17)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.35 (0.250)</td>
</tr>
<tr>
<td></td>
<td>52-29-53-4-000</td>
<td>52-28-53-4-000</td>
<td>8.7 (34)</td>
<td>8.7 (34)</td>
<td>8.7 (34)</td>
<td>8.7 (34)</td>
<td>0.7 (28)</td>
<td>2.5 (1)</td>
<td>15.5 (61)</td>
<td>9.6 (38)</td>
<td>5.2 (17)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.35 (0.250)</td>
<td></td>
</tr>
<tr>
<td>M3 X 0.5</td>
<td>52-31-51-4-000*</td>
<td>52-30-51-4-000*</td>
<td>52-32-51-4-000*</td>
<td>9.8 (35)</td>
<td>9.8 (35)</td>
<td>9.8 (35)</td>
<td>9.8 (35)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>52-31-53-4-000*</td>
<td>52-32-53-4-000*</td>
<td>8.1 (32)</td>
<td>7.8 (31)</td>
<td>7.9 (31)</td>
<td>6.4 (25)</td>
<td>0.6 (25)</td>
<td>2.5 (1)</td>
<td>14.5 (50)</td>
<td>9.6 (38)</td>
<td>5.2 (17)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td></td>
</tr>
<tr>
<td>0.7</td>
<td>52-49-51-4-000*</td>
<td>52-49-51-4-000*</td>
<td>10.5 (34)</td>
<td>10.5 (34)</td>
<td>10.5 (34)</td>
<td>10.5 (34)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-32</td>
<td>52-49-53-4-000*</td>
<td>52-49-53-4-000*</td>
<td>52-46-53-4-000*</td>
<td>10.3 (41)</td>
<td>10.3 (41)</td>
<td>10.3 (41)</td>
<td>10.3 (41)</td>
<td>0.9 (0.08)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td>6.1 (0.24)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Note:

- Part Numbers not available with combination head styles; Phillips or T0RX® only

---

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

---

Request Info

1-800-453-1692
www.aboveboardelectronics.com
47/4C Captive Screws
ATCA captive screws

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

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

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

Installation Notes
Please refer to installation drawings on www.southco.com for reference on dimensions B*, Ø D* and Ø Z*

F* indicates maximum float in the unfastened position

Part Number
See table

Specifying Color:
To indicate color, change the last three digits of the part number.
Example:
47-99-945-1P0-K000, black
47-99-945-1P0-K013, red

Metal Version

Overmolded Version

Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Series</th>
<th>Installation Method</th>
<th>Panel Thickness</th>
<th>Part Number</th>
<th>Part Number</th>
<th>H-1 (inch)</th>
<th>H-2 (inch)</th>
<th>P-1 (inch)</th>
<th>P-2 (inch)</th>
<th>F* (inch)</th>
<th>Panel Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATCA compliant (Metal</td>
<td>Press-in</td>
<td>0.9 (.036)</td>
<td>47-99-945-1P0</td>
<td>14.3 (.56)</td>
<td>10.1 (.40)</td>
<td>1.0 (.39)</td>
<td>5.0 (.20)</td>
<td>1 (.039)</td>
<td>5.95 ±0.04</td>
<td>(234 ±002)</td>
</tr>
<tr>
<td>Version)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flare-in</td>
<td>0.8 (.031)</td>
<td>47-99-944-1F1</td>
<td>14.3 (.56)</td>
<td>10.1 (.40)</td>
<td>1.0 (.39)</td>
<td>5.0 (.20)</td>
<td>1 (.039)</td>
<td>5.95 ±0.04</td>
<td>(234 ±002)</td>
</tr>
<tr>
<td>ATCA compliant (Overmolded Version)</td>
<td>Press-in</td>
<td>0.9 (.036)</td>
<td>47-99-945-1P0-K000</td>
<td>14.3 (.56)</td>
<td>10.1 (.40)</td>
<td>1.0 (.39)</td>
<td>5.0 (.20)</td>
<td>1 (.039)</td>
<td>5.95 ±0.04</td>
<td>(234 ±002)</td>
</tr>
<tr>
<td></td>
<td>Flare-in</td>
<td>0.8 (.031)</td>
<td>47-99-944-1F1-K000</td>
<td>14.3 (.56)</td>
<td>10.1 (.40)</td>
<td>1.0 (.39)</td>
<td>5.0 (.20)</td>
<td>1 (.039)</td>
<td>5.95 ±0.04</td>
<td>(234 ±002)</td>
</tr>
</tbody>
</table>

000 Black 008 Blue 013 Red 014 Green  Your color (contact Southco)
### F5 Captive Screws

**Flush series**

**Dimensions in millimeters (inch) unless otherwise stated**

---

**Installation**

- **Flush when fastened**

**Material and Finish**

- Shell: 303 Stainless steel, passivated

**Notes**

- For use in most aluminums or in low carbon steels that are 1/4 hard or softer
- Screws will float 0.5 (.02) total movement
- Shipped assembled

**Part Number**

See table

---

### Thread Size vs. Max. Recommended Tightening Torque

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Metric</th>
<th>Imperial</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3/ 4-40</td>
<td>0.6 N·m (5in·lbf)</td>
<td></td>
</tr>
<tr>
<td>6-32</td>
<td>1.6 N·m (14in·lbf)</td>
<td></td>
</tr>
<tr>
<td>M4/ 8-32</td>
<td>2.8 N·m (25in·lbf)</td>
<td></td>
</tr>
</tbody>
</table>

---

### Recess Style vs. Thread Size vs. Screw Dimensions

<table>
<thead>
<tr>
<th>Recess Style</th>
<th>Thread Size</th>
<th>Screw Dimensions</th>
<th>Slot Width</th>
<th>Screw Length L</th>
<th>Part Number Metric</th>
<th>Part Number Imperial</th>
<th>Screw Projection Beyond Outer Surface of Panel</th>
<th>Installation Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phillips</td>
<td>M4 x 0.7 or UNC 8-32</td>
<td>10.1 (.40) 9.45 (.373) 3.1 (.122) 6.4 (.25) 4.3 (.17)</td>
<td>~</td>
<td>8.6 (.34)</td>
<td>F5-M4-P2 F5-832-P2</td>
<td>5.6 (.22)</td>
<td>6.6 (.26)</td>
<td>7.6 (.30)</td>
</tr>
<tr>
<td>Slotted</td>
<td>M3 x 0.5 or UNC 4-40</td>
<td>7.1 (.28) 6.45 (.254) 1.7 (.067) 4 (.16) 3.8 (.15) 0.9 (.035)</td>
<td>5.8 (.23)</td>
<td>F5-M4-P4 F5-832-P4</td>
<td>6.6 (.26)</td>
<td>7.6 (.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slotted</td>
<td>UNC 6-32</td>
<td>8.1 (.32) 7.44 (.293) 2 (.082) 4.8 (.19) 3.8 (.15) 1 (.039)</td>
<td>6.4 (.25)</td>
<td>F5-M4-P6 F5-832-P6</td>
<td>7.6 (.30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slotted</td>
<td>M4 x 0.7 or UNC 8-32</td>
<td>10.1 (.40) 9.45 (.373) 2.34 (.092) 6.4 (.25) 5.1 (.20) 1.1 (.045)</td>
<td>8.9 (.35)</td>
<td>F5-M4-P8 F5-832-P8</td>
<td>8.6 (.34)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Thread Size vs. Max. Recommended Tightening Torque

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Metric</th>
<th>Imperial</th>
</tr>
</thead>
<tbody>
<tr>
<td>M4 x 0.7 or UNC 8-32</td>
<td>10.1 (.40) 9.45 (.373) 2.34 (.092) 6.4 (.25) 5.1 (.20) 1.1 (.045)</td>
<td>8.9 (.35)</td>
</tr>
<tr>
<td>UNC 6-32</td>
<td>8.1 (.32) 7.44 (.293) 2 (.082) 4.8 (.19) 3.8 (.15) 1 (.039)</td>
<td>6.4 (.25)</td>
</tr>
<tr>
<td>M4 x 0.7 or UNC 8-32</td>
<td>10.1 (.40) 9.45 (.373) 2.34 (.092) 6.4 (.25) 5.1 (.20) 1.1 (.045)</td>
<td>8.9 (.35)</td>
</tr>
</tbody>
</table>

---

**See page 543 for additional installation guidelines**

---

**Request Info**

1-800-453-1692

**www.aboveboardelectronics.com**

**www.southco.com/F5**
5T Captive Screws
Heat sink series

- Maximize heat transfer from components to heatsink
- Positive fastening under shock and vibration
- Fastener allows for thermal expansion of components under a set preload

Material and Finish
Screw: Hardened carbon steel, zinc plate, chromate plus sealer
Spring: 300 series stainless steel, passivated
Ferrule: Aluminum, natural

Performance Details
M3/4-40 Recommended Torque: 0.6 N•m (5.3 in•lbf)
M3.5/6-32 Recommended Torque: 1.08 N•m (9.6 in•lbf)

Installation Notes
1. Drill then countersink according to the required dimensions.
2. Insert screw assembly into prepared hole in panel. Place back-up tool as shown.
3. Place work under press, center tool over screw thread and flare ferrule into countersink in panel. Recommended load 2200 N.

Notes
Load applied by each screw: [3.4 (.13) * K] + 7.57 N (1.7 lb)
Standard K value shown in the table. Load at given deflection *shown in the fastened position above.

Part Number
See table

Dimensions in millimeters (inch) unless otherwise stated

Unfastened

Fastened

Standard

Alternate

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>Part Number</th>
<th>Panel Thickness Min.</th>
<th>Panel Thickness Max.</th>
<th>Screw Projection P1</th>
<th>Screw Projection P-2</th>
<th>T</th>
<th>ØB</th>
<th>ØC</th>
<th>ØD</th>
<th>ØF</th>
<th>Spring Rate K N/mm (lbf/in)</th>
<th>Load Max.* N (lbf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3</td>
<td>5T-11-M3-222-5</td>
<td>1.5 (.058)</td>
<td>3.2 (.126)</td>
<td>5.9 (.232)</td>
<td>8.4 (.331)</td>
<td>5 (.197)</td>
<td>6.8 (.27)</td>
<td>9 (.35)</td>
<td>6.7 (.294)</td>
<td>4.7 (.185)</td>
<td>4.45 (25.4)</td>
<td>22.5 (5)</td>
</tr>
<tr>
<td>4-40</td>
<td>5T-11-04-222-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M3.5</td>
<td>5T-11-M35-222-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-32</td>
<td>5T-11-06-222-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Request Info
1-800-453-1692
www.aboveboardelectronics.com

www.southco.com/5T

ABE
Above Board Electronics, Inc.
N7 Captive Nut
Thru hole and blind styles

- Spring ejected
- Knurled knob provides solid grip
- Fastens to externally threaded studs
- Helps speed panel replacement

Material and Finish
Knob: Aluminum, natural
Ferrule: Hardened steel, zinc plate, chromate plus sealer
Spring: 302 Stainless steel, passivated

Installation Notes
1. Prepare hole in panel as shown
2. Provide a solid back-up surface behind the panel
3. Press the assembly into the panel until only the top of the knurl on the ferrule is visible

Threadstud insert selection for blind hole applications
Frame thickness + panel thickness + P Minimum = X Minimum
Frame thickness + panel thickness + P Maximum = X Maximum
“L” values greater than X Maximum must use the thru hole version
If a weld stud is used, omit the frame thickness from the calculations (see the table and diagram to the right)

Notes: Recommended minimum distance from edge of panel to centerline of hole is 1.5 x Ø H.

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>P Min.</th>
<th>P Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 4-40</td>
<td>7.1 (.28)</td>
<td>9.5 (.37)</td>
</tr>
<tr>
<td>M4</td>
<td>10 (.40)</td>
<td>12.1 (.47)</td>
</tr>
<tr>
<td>M5</td>
<td>10.2 (.41)</td>
<td>12.2 (.48)</td>
</tr>
<tr>
<td>M6</td>
<td>12.4 (.49)</td>
<td>16.7 (.66)</td>
</tr>
<tr>
<td>4-40</td>
<td>7.3 (.29)</td>
<td>9.4 (.37)</td>
</tr>
<tr>
<td>6-32</td>
<td>9.9 (.39)</td>
<td>13.1 (.51)</td>
</tr>
<tr>
<td>8-32</td>
<td>10.1 (.40)</td>
<td>13.3 (.52)</td>
</tr>
<tr>
<td>10-32</td>
<td>10.3 (.41)</td>
<td>13.5 (.53)</td>
</tr>
<tr>
<td>1/4-20</td>
<td>13 (.51)</td>
<td>16.5 (.65)</td>
</tr>
</tbody>
</table>

www.southco.com/N7
09 Series Fast-Lead Screws
Studs · Small

Material and Finish
Low carbon steel, case hardened, zinc plated, chromate plus sealer or stainless steel

How to Specify:
1. Determine your outer panel and frame thicknesses:
   Outer panel P =
   Frame thickness F =
2. Choose your receptacle
3. Choose the retainer style
4. Find the correct constant in table opposite using the receptacle and retainer selected
5. Add outer panel thickness (P), frame thickness (F), and the constant found in step 4 to determine your total material thickness (TMT)
   TMT = P + F + Constant
6. Find the TMT value in the ranges given in Column 1 in the part number table
7. Confirm that the outer panel thickness P does not exceed the value given in Column 2. This will confirm that your retainer will install properly beyond the last thread and retain your screw to the outer panel
8. Going across the row in the part number table, find the part number that matches your desired head style

Part Number
See table

Notes
For full screw retraction, B must be less than frame thickness plus receptacle height
For stainless steel screw (slotted, and knurled ONLY) replace last 2 digits of part number with “26”. Example: 09-11-102-26

Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Retainer Type</th>
<th>Flat Rivet or Weld</th>
<th>Clip</th>
<th>Saddle</th>
<th>Press-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel</td>
<td>0.3 (.012)</td>
<td>1.0 (.032)</td>
<td>4.5 (.177)</td>
<td>-1.3 (-.050)</td>
</tr>
<tr>
<td>Nylon</td>
<td>1.1 (.043)</td>
<td>1.6 (.063)</td>
<td>5.3 (.208)</td>
<td>-0.5 (-.020)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Screw Assembly Part Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMT</td>
<td>Outer Panel P</td>
<td>Slotted</td>
<td>Knurled</td>
</tr>
<tr>
<td>Min.</td>
<td>Max.</td>
<td>Slotted</td>
<td>Knurled</td>
</tr>
<tr>
<td>1.3 (.050)</td>
<td>3.2 (.125)</td>
<td>0.9 (.035)</td>
<td>09-11-102-11</td>
</tr>
<tr>
<td>2.5 (.100)</td>
<td>3.2 (.125)</td>
<td>2.2 (.085)</td>
<td>09-11-103-11</td>
</tr>
<tr>
<td>1.3 (.050)</td>
<td>6.4 (.250)</td>
<td>0.9 (.035)</td>
<td>09-11-202-11</td>
</tr>
<tr>
<td>2.5 (.100)</td>
<td>6.4 (.250)</td>
<td>2.2 (.085)</td>
<td>09-11-203-11</td>
</tr>
<tr>
<td>3.8 (.150)</td>
<td>6.4 (.250)</td>
<td>3.4 (.135)</td>
<td>09-11-204-11</td>
</tr>
<tr>
<td>5.1 (.200)</td>
<td>6.4 (.250)</td>
<td>4.7 (.185)</td>
<td>09-11-205-11</td>
</tr>
<tr>
<td>7.6 (.300)</td>
<td>9.5 (.375)</td>
<td>7.2 (.285)</td>
<td>09-11-307-11</td>
</tr>
</tbody>
</table>

www.southco.com/09
09 Series Fast-Lead Screws
Receptacles / retainers - Small

Dimensions in millimeters (inch) unless otherwise stated

### Flat Type Receptacle
2 Holes, Ø 2.6 for 2.5 mm hardware or Ø 0.088 for Ø 0.094 rivet
CSK other side to suit

### Clip-On Type Receptacle
4.8 (0.19) Min.
Ø 6.4 (0.25) Min.
Ø 7.1 (0.281) Max.

### Self-Clinching Receptacle
Free Running

### Saddle Type Receptacle
2 Holes, Ø 2.6 for 2.5 mm hardware or Ø 0.088 for Ø 0.094 rivet
CSK other side to suit

### Retainers
- Stainless Steel
- Nylon

### Material and Finish
Steel, zinc immersion coating or stainless steel

### Installation Notes
See page 543 for self-clinching installation guidelines

### Part Number
See table
Material and Finish
Low carbon steel, case hardened, zinc plate, chromate plus sealer or stainless steel

How to Specify:
1. Determine your outer panel and frame thicknesses:
   Outer panel P =
   Frame thickness F =
2. Choose your receptacle
3. Choose the retainer style
4. Find the correct constant in table opposite using the receptacle and retainer selected
5. Add outer panel thickness (P), frame thickness (F), and the constant found in step 4 to determine your total material thickness (TMT)
   \[ TMT = P + F + \text{Constant} \]
6. Find the TMT value in the ranges given in Column 1 in the part number table
7. Confirm that the outer panel thickness P does not exceed the value given in Column 2. This will confirm that your retainer will install properly beyond the last thread and retain your screw to the outer panel
8. Going across the row in the part number table, find the part number that matches your desired head style

Notes
For full screw retraction, B must be less than inner panel thickness plus receptacle height

For stainless steel screw (slot, wing and knurled ONLY) replace last 2 digits of part number with “12”. Example: 12-11-102-12
## Dimensions in millimeters (inch) unless otherwise stated

### Constant Table

<table>
<thead>
<tr>
<th>Retainer type</th>
<th>Receptacle Type</th>
<th>Flat</th>
<th>Clip</th>
<th>Saddle</th>
<th>Side</th>
<th>Press-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel</td>
<td>Flat Clip Saddle Side Press-In</td>
<td>0.38 (.015)</td>
<td>1.1 (.045)</td>
<td>4.0 (.156)</td>
<td>1.5 (.060)</td>
<td>-1.3 (-.050)</td>
</tr>
<tr>
<td>Nylon</td>
<td>Flat Clip Saddle Side Press-In</td>
<td>1.4 (.054)</td>
<td>2.0 (.079)</td>
<td>5.31 (.210)</td>
<td>1.5 (.060)</td>
<td>-.5 (.020)</td>
</tr>
</tbody>
</table>

### Column 1

<table>
<thead>
<tr>
<th>TMT to be Fastened</th>
<th>Max. Thickness of Outer Panel P</th>
<th>Slotted</th>
<th>Wing</th>
<th>Knurled</th>
<th>Tool Head Recess</th>
<th>Phillips Recess</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>Max.</td>
<td>1.3 (.050)</td>
<td>3.2 (.125)</td>
<td>1.9 (.075)</td>
<td>3.2 (.125)</td>
<td>4.5 (.175)</td>
<td>12-11-102-11</td>
</tr>
<tr>
<td>2.5 (.100)</td>
<td>6.4 (.250)</td>
<td>1.9 (.075)</td>
<td>3.2 (.125)</td>
<td>4.5 (.175)</td>
<td>12-11-202-11</td>
<td>12-12-202-11</td>
<td>12-13-202-11</td>
</tr>
<tr>
<td>3.8 (.150)</td>
<td>12.7 (.500)</td>
<td>1.9 (.075)</td>
<td>3.2 (.125)</td>
<td>4.5 (.175)</td>
<td>12-11-302-11</td>
<td>12-12-302-11</td>
<td>12-13-302-11</td>
</tr>
<tr>
<td>5.1 (.200)</td>
<td>18.7 (.736)</td>
<td>1.9 (.075)</td>
<td>3.2 (.125)</td>
<td>4.5 (.175)</td>
<td>12-11-402-11</td>
<td>12-12-402-11</td>
<td>12-13-402-11</td>
</tr>
<tr>
<td>7.6 (.300)</td>
<td>21.9 (.861)</td>
<td>1.9 (.075)</td>
<td>3.2 (.125)</td>
<td>4.5 (.175)</td>
<td>12-11-502-11</td>
<td>12-12-502-11</td>
<td>12-13-502-11</td>
</tr>
<tr>
<td>10.2 (.400)</td>
<td>25.0 (.986)</td>
<td>1.9 (.075)</td>
<td>3.2 (.125)</td>
<td>4.5 (.175)</td>
<td>12-11-602-11</td>
<td>12-12-602-11</td>
<td>12-13-602-11</td>
</tr>
</tbody>
</table>

### Request Info

**Above Board Electronics, Inc.**

1-800-453-1692

www.aboveboardelectronics.com
12 Series Fast-Lead Screws
Receptacles - Medium

Material and Finish
Steel, zinc immersion coating or stainless steel
Side mount receptacle: 1064 steel, zinc immersion coating
Press-in receptacle: low carbon steel, case hardened and zinc plate, chromate plus sealer

Installation Notes
See page 543 for self-clinching installation guidelines

Dimensions in millimeters (inch) unless otherwise stated

<table>
<thead>
<tr>
<th>Type</th>
<th>Ø H</th>
<th>Receptacle Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Steel</td>
</tr>
<tr>
<td>Side mount receptacle</td>
<td>~</td>
<td>12-90-101-10</td>
</tr>
<tr>
<td>Flat receptacle rivet</td>
<td>2.7 (.105)</td>
<td>12-11015-13</td>
</tr>
<tr>
<td>Flat receptacle weld-on</td>
<td>3.4 (.135)</td>
<td>12-11020-11</td>
</tr>
<tr>
<td>Press-in receptacle</td>
<td>~</td>
<td>12-44-101-11</td>
</tr>
<tr>
<td>Saddle receptacle rivet</td>
<td>3.4 (.135)</td>
<td>12-11043-11</td>
</tr>
<tr>
<td>Saddle receptacle weld-on</td>
<td>~</td>
<td>~</td>
</tr>
</tbody>
</table>
12 Series Fast-Lead Screws
Receptacles / retainers · Medium

Dimensions in millimeters (inch) unless otherwise stated

### Clip-On Type Receptacle

<table>
<thead>
<tr>
<th>Type</th>
<th>Frame Thickness</th>
<th>A</th>
<th>B</th>
<th>Z Max.</th>
<th>Receptacle Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clip-on receptacle - J</td>
<td>0.8 (.031) to 2.8 (.109)</td>
<td>24.8 (.98)</td>
<td></td>
<td>12.7 (.50)</td>
<td>12-11025-11</td>
</tr>
<tr>
<td>Clip-on receptacle - U</td>
<td>0.8 (.031) to 2.8 (.109)</td>
<td>25.9 (1.02)</td>
<td>14.2 (.56)</td>
<td>11.9 (.47)</td>
<td>12-11017-11, 12-11017-12</td>
</tr>
<tr>
<td></td>
<td>2.8 (.109) to 4.1 (.161)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.8 (.109) to 4.1 (.161)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1 (.161) to 5.5 (.213)</td>
<td>24.8 (.98)</td>
<td>13.5 (.53)</td>
<td>11.1 (.44)</td>
<td>12-11029-11, 12-11031-11</td>
</tr>
<tr>
<td></td>
<td>5.4 (.213) to 6.7 (.265)</td>
<td>24.5 (.97)</td>
<td>13.01 (.51)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clip-on receptacle - Narrow flange</td>
<td>0.8 (.031) to 2.8 (.109)</td>
<td></td>
<td></td>
<td></td>
<td>12-11050-27</td>
</tr>
</tbody>
</table>

### Retainers

<table>
<thead>
<tr>
<th>Retainer Style</th>
<th>Retainer Part Number</th>
<th>Tool Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 Stainless steel, passivated</td>
<td>12-6-1</td>
<td>12-0-20980-11</td>
</tr>
<tr>
<td>Nylon, black</td>
<td>12-11064-42</td>
<td></td>
</tr>
</tbody>
</table>

### Material and Finish
Steel, zinc immersion coating or stainless steel

### Part Number
See table
Material and Finish
Low carbon steel, case hardened, zinc plated, chromate plus sealer or stainless steel

1. Determine your outer panel and frame thicknesses:
   Outer panel P =
   Frame thickness F =
2. Choose your receptacle
3. Choose the retainer style
4. Find the correct constant in table opposite using the receptacle and retainer selected
5. Add outer panel thickness (P), frame thickness (F), and the constant found in step 4 to determine your total material thickness (TMT)
   TMT = P+F+Constant
6. Find the TMT value in the ranges given in Column 1 in the part number table
7. Confirm that the outer panel thickness P does not exceed the value given in Column 2. This will confirm that your retainer will install properly beyond the last thread and retain your screw to the outer panel
8. Going across the row in the part number table, find the part number that matches your desired head style

Notes
For full screw retraction, B must be less than inner panel thickness plus receptacle height
For stainless steel screw (slotted, wing and knurled ONLY) replace last 2 digits of part number with “12”. Example: 17-11-104-12

Part Number
See table

www.southco.com/17
17 Series Fast-Lead Screws
Receptacles / retainers - Large

Dimensions in millimeters (inch) unless otherwise stated

**Side Mount Receptacle**

- Dimensions:
  - Frame: 25.4 (1.000) mm
  - Door: 19.8 (0.78) mm
  - Rivet: 2.4 (0.093) mm
  - Weld: 4.5 (0.177) mm

**Clip-On Type Receptacle**

- Dimensions:
  - Frame: Ø 8.4 (0.33) mm
  - Door: 15.1 (0.594) mm

**Flat Type Receptacle**

- Dimensions:
  - Frame: Ø 22.4 (0.88) mm
  - Door: 17.5 (0.687) mm
  - Rivet: 1.1 (0.044) mm
  - Weld: 1.0 (0.042) mm

**Retainers**

- Dimensions:
  - Ø 21.6 (0.85) mm
  - Ø 6.8 (0.255) mm
  - Ø 6.4 (0.25) mm
  - Ø 0.4 (0.015) mm
  - Ø 8.7 (0.34) mm

**Material and Finish**
Steel, zinc immersion coating or stainless steel

**Part Number**
See table

- **Side mount receptacle**
  - Steel: 17-90-101-10
  - Stainless steel: 17-10017-11

- **Clip-on type receptacle**
  - Steel: 17-10017-11
  - Stainless steel: 17-10017-11

- **Flat type receptacle - Rivet**
  - Steel: 17-10015-13
  - Stainless steel: 17-10015-14

- **Flat type receptacle - Weld**
  - Steel: 17-10015-13
  - Stainless steel: 17-10015-14

**Retainer Style**

<table>
<thead>
<tr>
<th>Retainer Style</th>
<th>Retainer Part Number</th>
<th>Tool Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 Stainless steel, passivated</td>
<td>17-6-1</td>
<td>17-0-24585-11</td>
</tr>
<tr>
<td>Nylon, black</td>
<td>17-10054-42</td>
<td>17-0-21333-11</td>
</tr>
</tbody>
</table>
DM Inserts
Monosert rack attach

- Front install insert for rack attach applications

Material and Finish
Steel, zinc plated

Installation Notes
Max. tightening torque: 2 N•m (17.7 in-lbf)

Dimensions in millimeters (inch) unless otherwise stated

Standard Installation

Alternative Installation

DM Inserts
Duosert rack attach

- Front install insert for rack attach applications

Material and Finish
Zinc alloy and stainless steel, natural

Installation Notes
Max. tightening torque: 10 N•m (88.5 in-lbf)
Max. panel thickness: 1 - 1.2 (.039 - .047)
Recommended installation tool requires a flat blade screwdriver