

## SMT CAPTIVE SCREW

- Designed for hand operation.
- Fast positioning device that does not require extra tools.
- Color management for plastic material is available.
- Plastic knob can isolate ambient heat source and static.

## 29 SERIES SMT Captive Screw Ø18mm Patented.



### Material and Finish

**Knob :**  
6000 Series Aluminum, Plastic.

**Screw :**  
Carbon Steel, Zinc Finish.

**Spring :**  
300 Series Stainless Steel, Natural Finish.

**Ferrule :**  
Carbon Steel, Tin Finish.

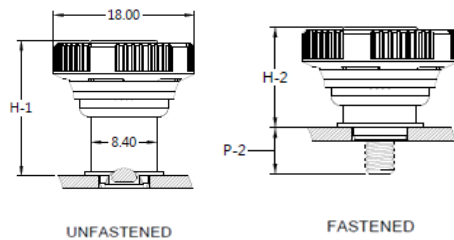
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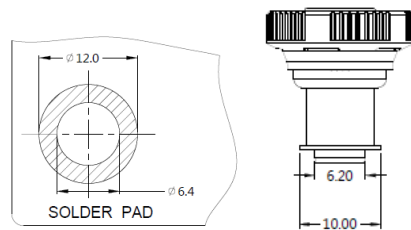
### ■ Recess Style



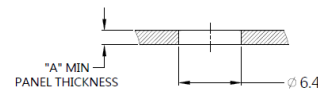
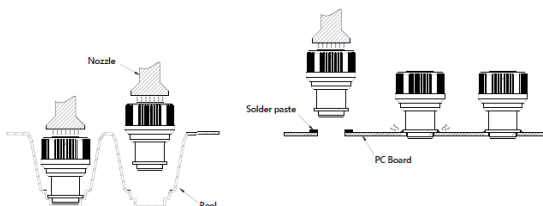
### ■ Knob High and Screw Projection



### ■ Installation Style



### ■ Installation



PANEL PREPARATION

### ■ Knob Color Options



### ■ Dimensions(mm)

THREAD	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT	
	A MIN	A MAX	T	P-1	P-2	H-1	H-2
M3.5	1.6	-	16.5	0	4.1	17.3	12.4
#6-32	1.6	-	16.5	0	4.1	17.3	12.4
M3	1.6	-	16.5	0	4.1	17.3	12.4

## SMT Series

- Material of plastic knob can sustain high temperature on SMT process.
- Production follows standard SMT process.
- Color management is available as required by customers.
- Functional device which prevents thread damage caused by inflow of tin in SMT process.

## 19 SERIES SMT Captive Screw Ø8mm Patented.



### Material and Finish

**Knob :**  
Plastic  
**Screw :**  
Hardened Carbon Steel, Zinc Finish.  
**Spring :**  
300 Series Stainless Steel, Natural Finish.  
**Ferrule :**  
Carbon Steel, Tin Finish.

### Reel



### Recess Style



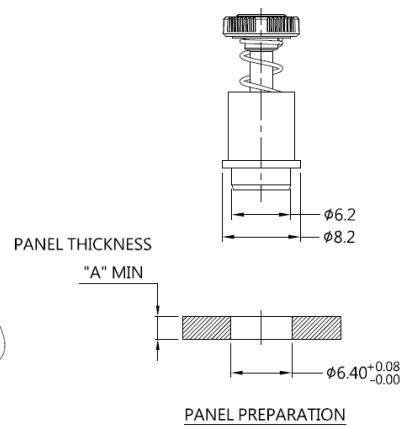
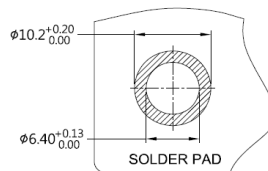
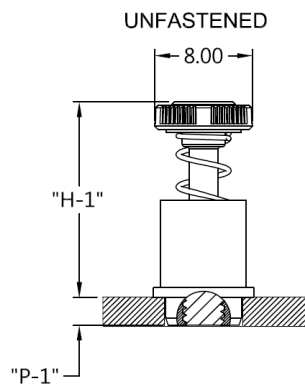
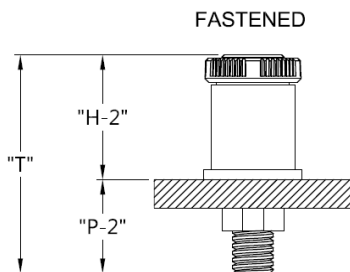
PHILLIPS  
No.2  
Phillips Recess



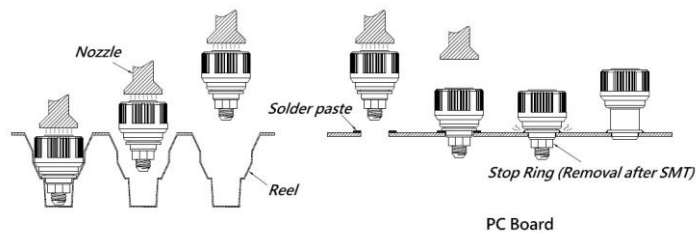
6L  
T15

### Installation Style

### Knob High and Screw Projection



### Installation



### Knob Color Options

Standard colors



### Dimensions

THREAD	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT	
	A MIN	A MAX	T	P-1	P-2	H-1	H-2
M3.5	2.4	-	18.4	2.3	7.9	16.1	10.5
#6-32	1.0	-	14	0.6	4.3	13.4	9.7

- Material of plastic knob can sustain high temperature on SMT process.
- Production follows standard SMT process.
- Color management is available as required by customers.
- Functional device which prevents thread damage caused by inflow of tin in SMT process.

## 19 SERIES Low Profile SMT Captive Screw Ø10mm patented.



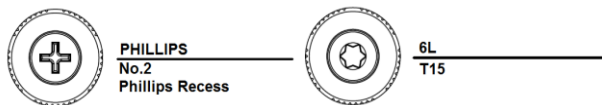
### Material and Finish

**Knob :**  
Plastic  
**Screw :**  
Hardened Carbon Steel, Nickel Finish.  
**Spring :**  
300 Series Stainless Steel, Natural Finish.  
**Ferrule :**  
Carbon Steel, Tin Finish.

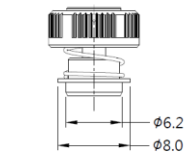
### Reel



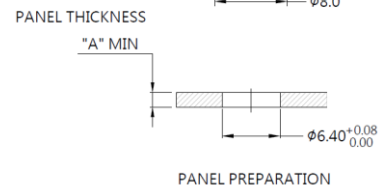
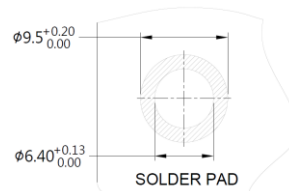
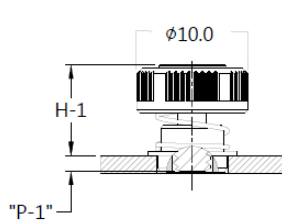
### ■ Recess Style



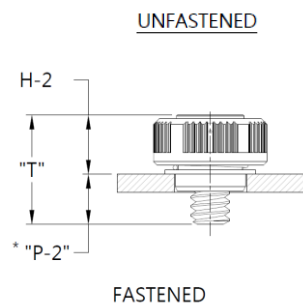
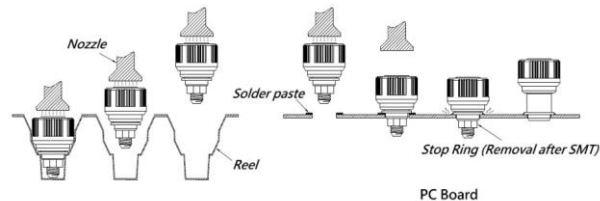
### ■ Installation Style



### ■ Knob High and Screw Projection



### ■ Installation



### ■ Knob Color Options



### ■ Dimensions

THREAD	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT	
	A MIN	A MAX	T	P-1	P-2	H-1	H-2
#6-32	1.6	-	9.6	1.4	4.2	8.2	5.4
M3	0.8	-	9.0	1.2	4.0	7.8	5.0

## SMT Series

- Material of plastic knob can sustain high temperature on SMT process.
- Production follows standard SMT process.
- Color management is available as required by customers.
- Functional device which prevents thread damage caused by inflow of tin in SMT process.

## 29 SERIES SMT Captive Screw Ø10mm patented.



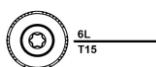
### Material and Finish

**Knob :**  
6000 Series Aluminum, Plastic.  
**Screw :**  
400 Series Stainless Steel, Natural Finish.  
**Spring :**  
300 Series Stainless Steel, Natural Finish.  
**Ferrule :**  
Carbon Steel, Tin Finish.

### Reel

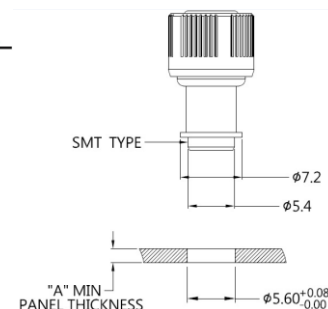
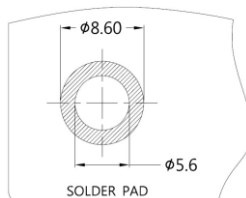
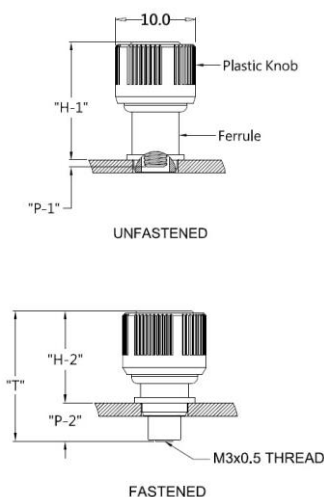


### Recess Style

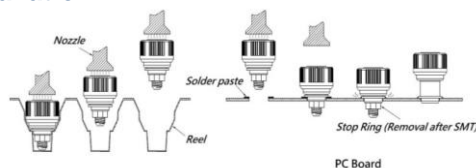


### Installation Style

### Knob High and Screw Projection



### Installation



### Knob Color Options

#### Standard colors



### Dimensions

THREAD	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT	
	A MIN	A MAX	T	P-1	P-2	H-1	H-2
M3	1.6	-	15.6	0.9	4.6	14.7	11.0
#6-32	1.6	-	15.6	0.9	4.6	14.7	11.0

## Captive Fastener

- Innovative lock-pin design, structure a new style of quarter turn Captive Fastener
- 1/4 quarter turn to lock/unlock two panels, quick release structure
- Energy saving, time efficiency, production cost down.
- Plastic knob or Metal Knob is available.
- Plastic knob color management is available.

### 1/4 Quarter Turn / 96 SERIES Captive Fastener-SMT type Ø11.5mm Patented.



#### Material and Finish

**Knob :**  
Plastic.

**Screw :**  
Carbon Steel, Zinc Finish.

**Spring :**  
300 Series Stainless Steel, Natural Finish.

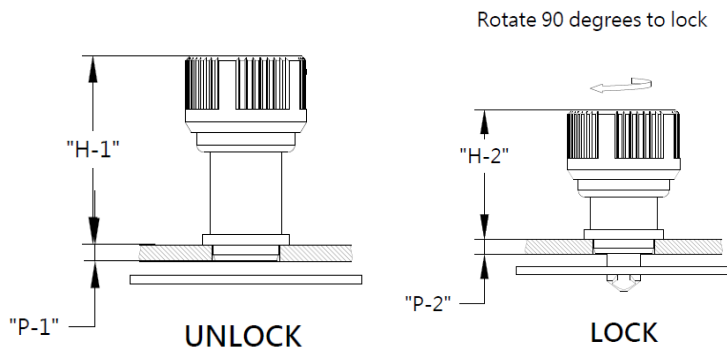
**Ferrule :**  
Carbon Steel, Tin Finish.

**Buckle :**  
Carbon Steel, Tin Finish.

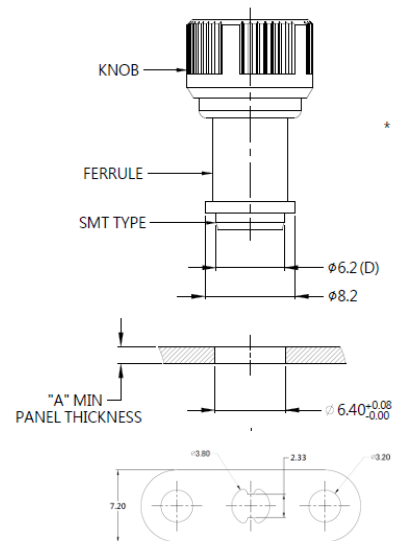
#### REEL



#### ■ Knob High and Screw Projection



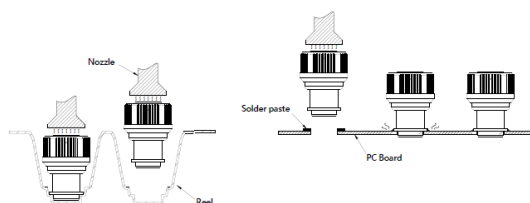
#### ■ Installation Style



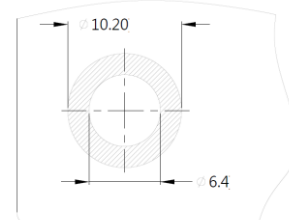
#### ■ Knob Color Options



#### ■ Installation



#### PANEL PREPARATION



#### ■ Dimensions(mm)

OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT	
A MIN	A MAX	T	P-1	P-2	H-1	H-2
1.6	-	18.9	0.8	5.8	17.8 REF	13.1 REF

## SMT CAPTIVE SCREW

- Good helper for lifting the motherboard.
- Both fastening and lifting functions.
- Anti-scalding and anti-electricity plastic layer.
- Color and riveting form can be customized.
- SMT fully automated manufacturing process can increase production stability and production efficiency.

## SMT Lift Screw Patented.



### Material and Finish

**Knob:**  
6000 Series Aluminum, Plastic

**Screw :**  
400 Series Stainless Steel, Natural Finish.

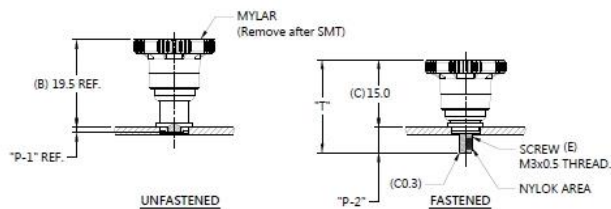
**Spring :**  
300 Series Stainless Steel, Natural Finish.

**Ferrule :**  
Carbon Steel, Tin Finish.

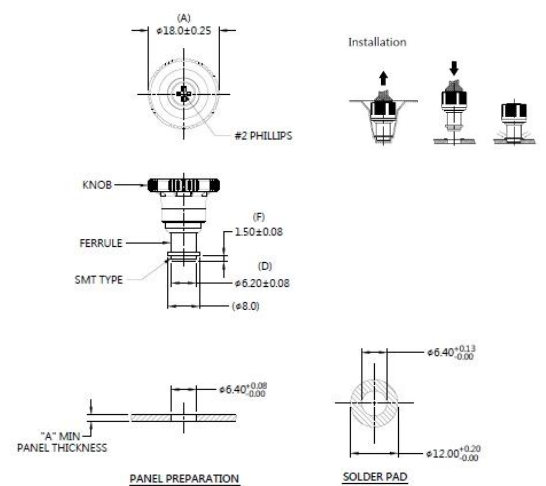
### Recess Style



### Knob High and Screw Projection



### Panel Preparation



### Color Options



### Dimensions (mm)

P/N	LENGTH "T"	SCREW PROJECTION		PANEL THICKNESS	
		P-1	P-2	"A" MIN	"A" MAX
29-151-211-5-RL	20.7	1.2	5.7	1.6	~



- SMT full automatic reflux welding process can increase production stability and production efficiency
- Welding for reinstallation can increase product reliability
- Reduce a damage risk of circuit caused during assembling
- Production follows standard SMT process
- Functional device which prevents thread damage caused by inflow of tin in SMT process

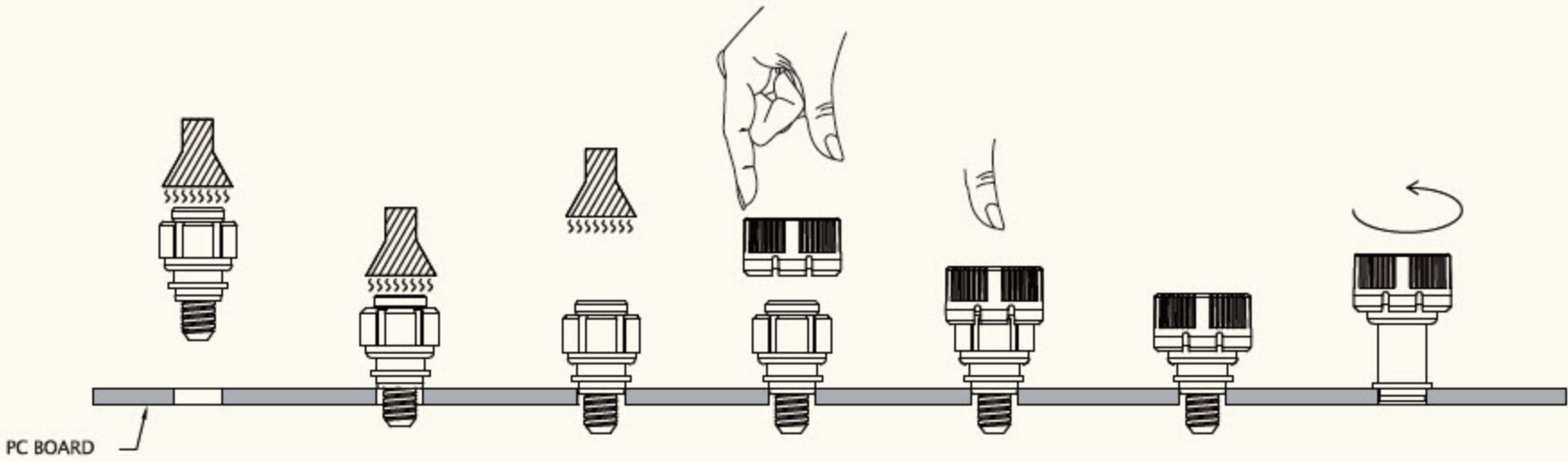
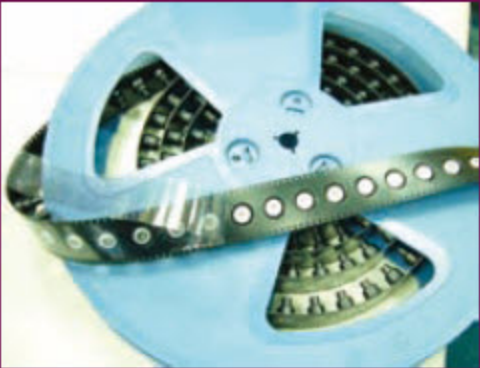
21 SERIES SMT STYLE



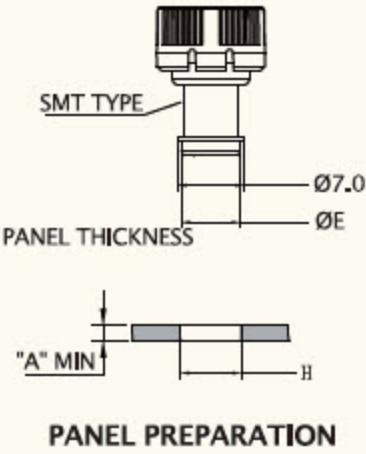
Material and Finish

- Knob:**  
6000 Series aluminum, plastic ABS+PC
- Screw:**  
400 Series stainless steel, passivated.
- Spring:**  
300 Series stainless steel.
- Ferrule:**  
Hardened carbon steel, tin finish.

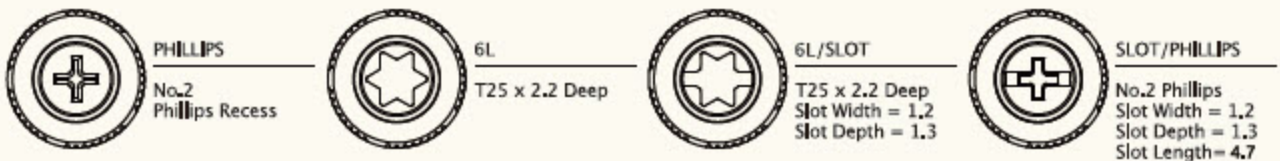
Reel



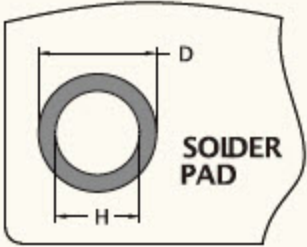
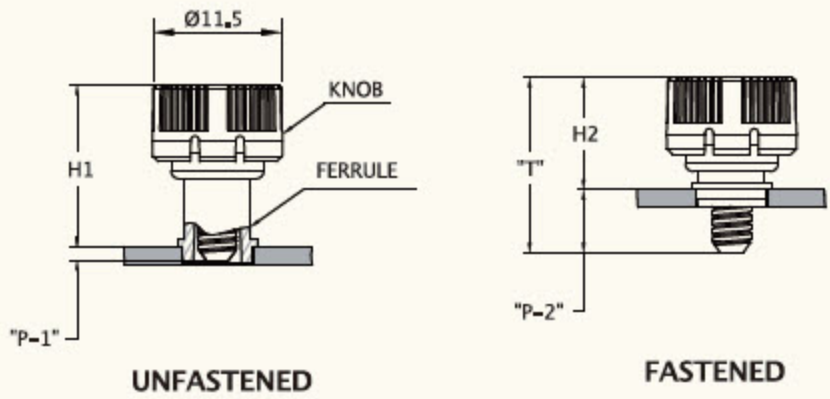
Installation Style



Recess Style



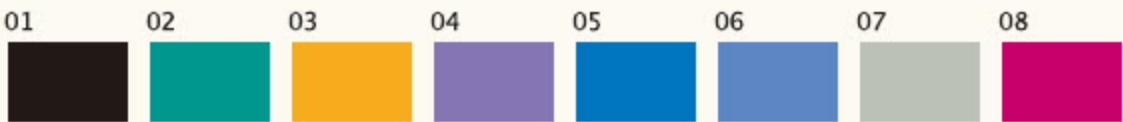
Knob Height and Screw Projection



Thread Size	ØE	Ø"H"HOLE SIZE IN SHEET	Ø"D"MIN SOLDER PAD
M3	Ø5.5	5.7 <sup>+0.08</sup> <sub>-0</sub> (.224 <sup>+0.003</sup> <sub>-0.000</sub> )	7.8(.307)
#4-40			
M3.5	Ø6.2	6.4 <sup>+0.08</sup> <sub>-0</sub> (.252 <sup>+0.003</sup> <sub>-0.000</sub> )	9.0(.354)
#6-32			

Knob Color Options

Standard colors



Dimensions

21-150-138-( ) ← 01~08 (color number.) mm

Thread	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT		TOTAL FLOAT	PART NUMBER				
	A MIN	A MAX	T	P-1	P-2	H-1	H-2		Slot Recess	Phillips Recess	6L Recess	6L/Slot Recess	Slot/Phillips Recess
M3	1.6	~	13.8	1.2	4.7	12.6	9.1	0.6	21-150-138-( )	21-150-238-( )	21-150-338-( )	21-150-438-( )	21-150-538-( )
#4-40									21-250-138-( )	21-250-238-( )	21-250-338-( )	21-250-438-( )	21-250-538-( )
M3.5	1.6	~	15.5	1.2	5.6	14.3	9.9	0.6	21-350-138-( )	21-350-238-( )	21-350-338-( )	21-350-438-( )	21-350-538-( )
#6-32									21-450-138-( )	21-450-238-( )	21-450-338-( )	21-450-438-( )	21-450-538-( )



- Material of plastic knob can sustain high temperature in SMT process
- Production follows standard SMT process
- Color management is available as required by customers
- Functional device which prevents thread damage caused by inflow of tin in SMT process

29 SERIES SMT STYLE



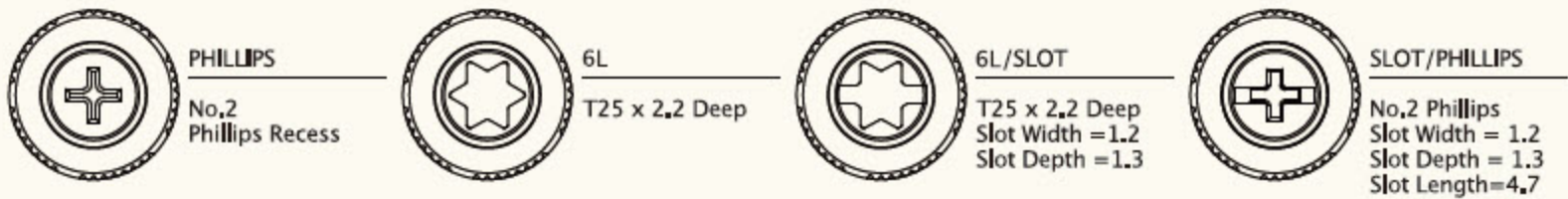
Material and Finish

- Knob:**  
6000 Series aluminum, plastic.
- Screw:**  
400 Series stainless steel, passivated.
- Spring:**  
300 Series stainless steel.
- Ferrule:**  
Hardened carbon steel, tin finish.

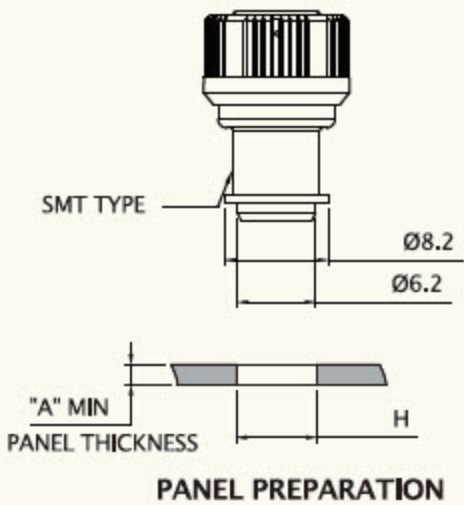
Reel



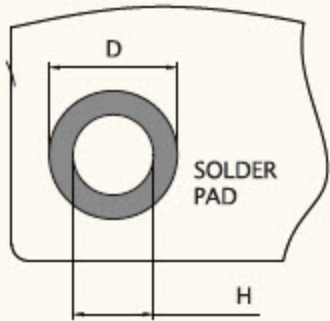
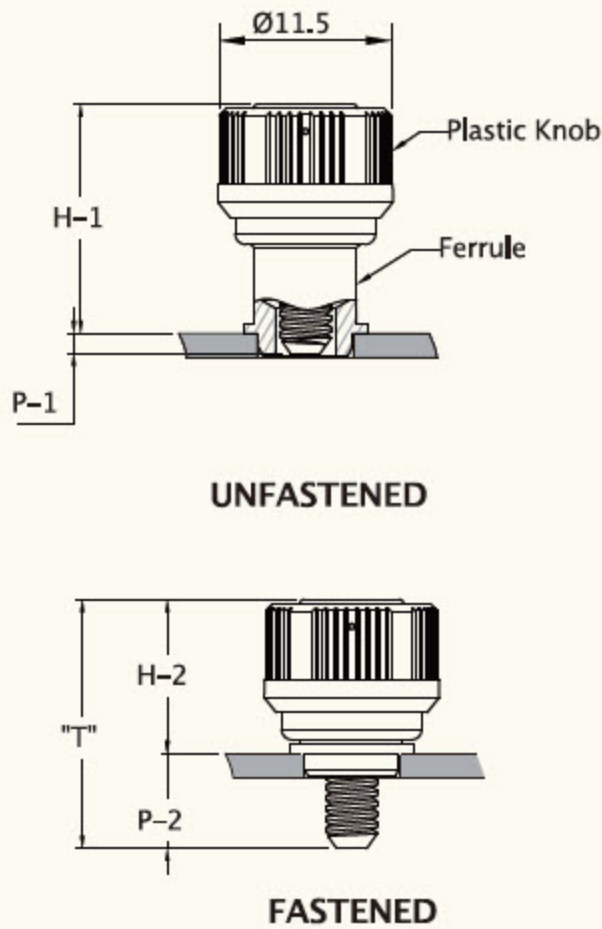
Recess Style



Installation Style



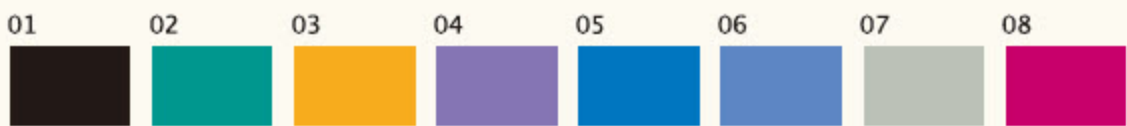
Knob Height and Screw Projection



Thread Size	ØD	Clearance Hole +0.2 (+.008) -0.1 (-.004)
M3.5	6.4 <sup>+0.08</sup> <sub>-.0</sub> (.252 <sup>+0.003</sup> <sub>-.000</sub> )	9.0(.354)
#6-32		

Knob Color Options

Standard colors



Dimensions

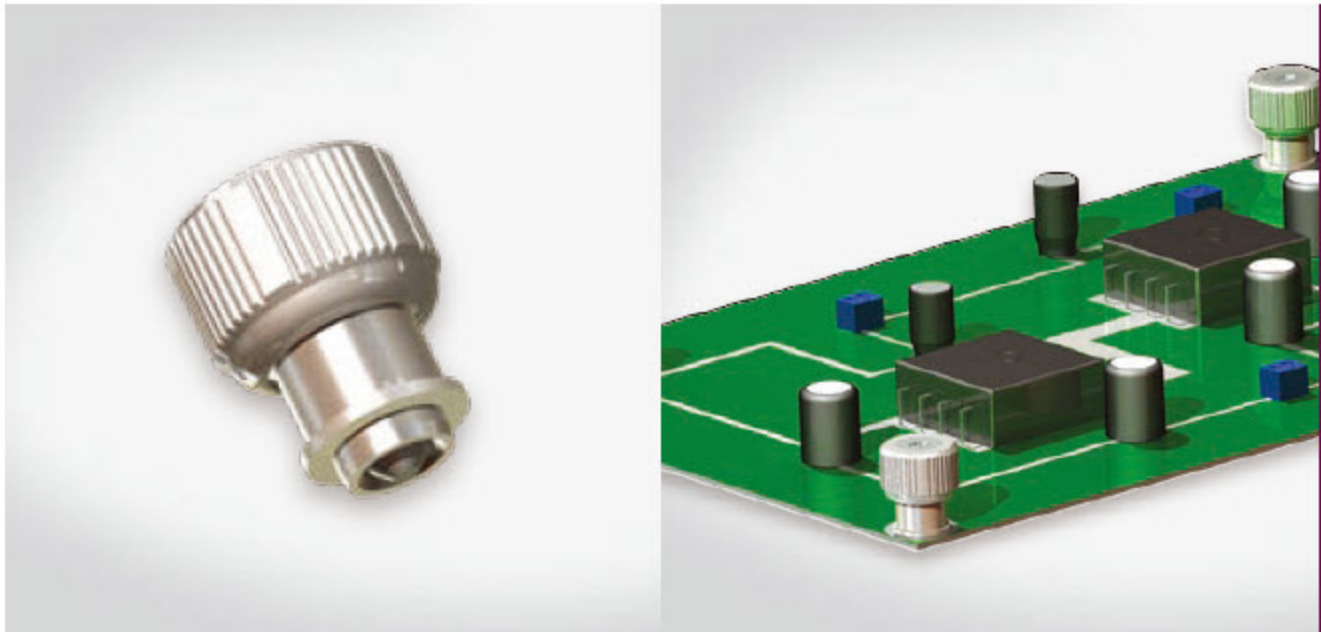
29-345-148-( )-7 — 01~08 (color number.) mm

Thread	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT		TOTAL FLOAT	PART NUMBER				
	A MIN	A MAX	T	P-1	P-2	H-1	H-2		Slot Recess	Phillips Recess	6L Recess	6L/Slot Recess	Slot/Phillips Recess
M3.5	1.6	~	16.5	1.3	6.3	15.2	10.2	0.3	29-345-148-( )-7	29-345-248-( )-7	29-345-348-( )-7	29-345-448-( )-7	29-345-548-( )-7
#6-32									29-445-148-( )-7	29-445-248-( )-7	29-445-348-( )-7	29-445-448-( )-7	29-445-548-( )-7



- SMT full automatic reflux welding process can increase production stability and production efficiency
- Welding for reinstallation can increase product reliability
- Reduce a damage risk of circuit caused during assembling
- Functional device which prevents thread damage caused by inflow of tin in SMT process

39 SERIES SMT STYLE



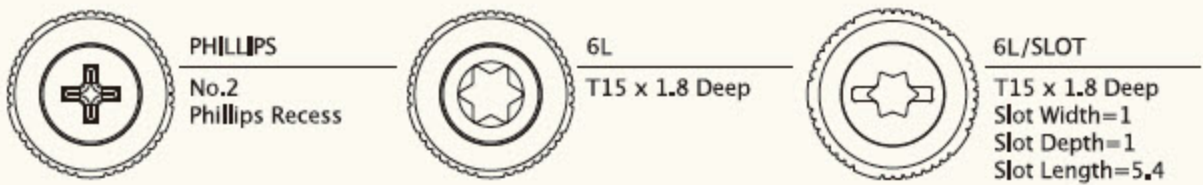
Material and Finish

- Knob:**  
6000 Series aluminum, natural.
- Screw:**  
300 Series stainless steel.
- Spring:**  
300 Series stainless steel.
- Ferrule:**  
Low carbon steel, tin finish.

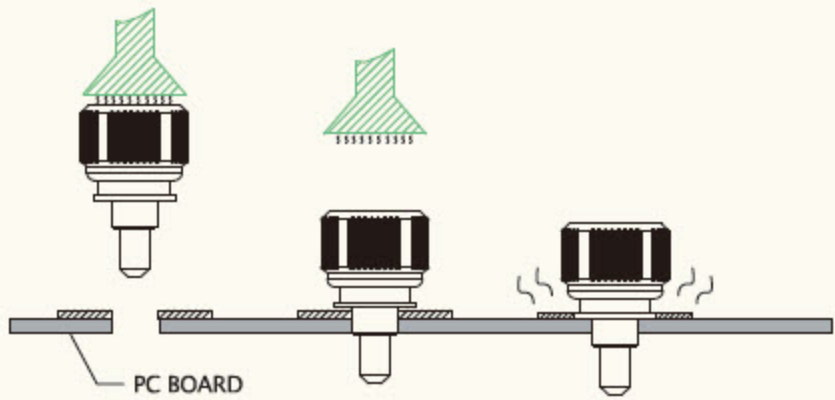
Reel



Recess Style

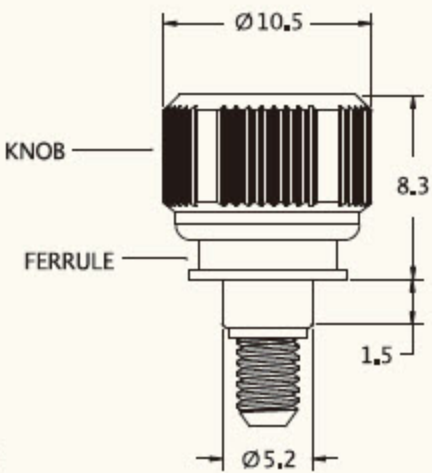


SMT Installation

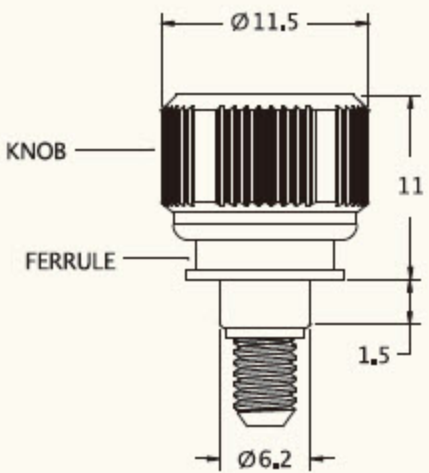


Installation Package

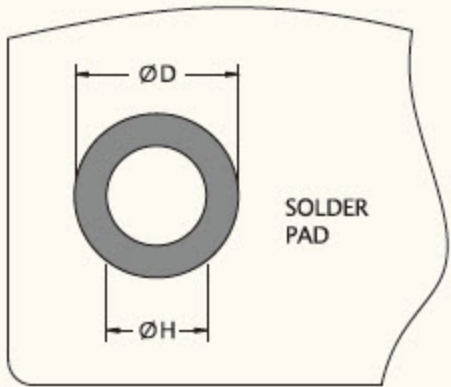
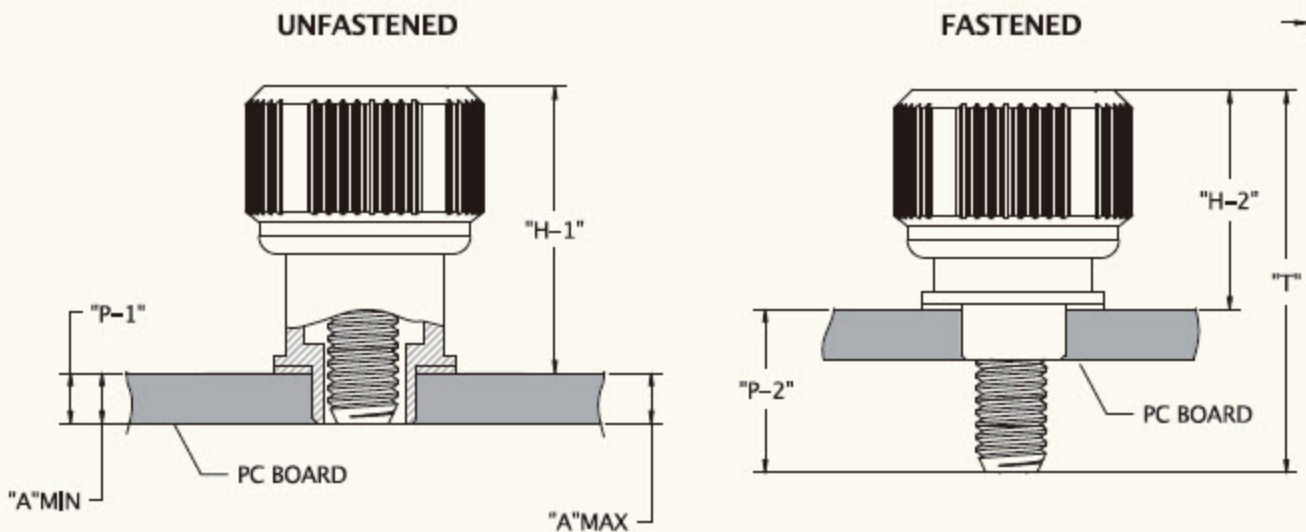
M3 PC-Board Style



6-32 PC-Board Style



Knob Height and Screw Projection



M3 Thread Size

mm

INSTALLATION STYLE	OUTER PANEL DIMENSIONS		ØH HOLE SIZE IN PANEL +0.08	ØD MIN SOLDER PAD	KNOB HEIGHT		SCREW PROJECTION		TOTAL FLOAT	PART NUMBER		
	A MIN	A MAX			H-1	H-2	P-1	P-2		Phillips Recess	6L Recess	6L/Slot Recess
SMT	1.6	~	6.0	8.0	12.2	8.3	1.6	5.5	0.5	39-150-220	39-150-320	39-150-420
							3.2	7.1		39-150-230	39-150-330	39-150-430

6-32 Thread Size

mm

INSTALLATION STYLE	OUTER PANEL DIMENSIONS		ØH HOLE SIZE IN PANEL +0.08	ØD MIN SOLDER PAD	KNOB HEIGHT		SCREW PROJECTION		TOTAL FLOAT	PART NUMBER		
	A MIN	A MAX			H-1	H-2	P-1	P-2		Phillips Recess	6L Recess	6L/Slot Recess
SMT	1.6	~	6.4	9.0	15.8	11.0	0.7	5.5	0.5	39-450-220	39-450-320	39-450-420
							2.2	7.0		39-450-230	39-450-330	39-450-430



- Low profile design for hand operation
- SMT full automatic reflux welding process can increase production stability and production efficiency
- Welding for reinstallation can increase product reliability
- Reduce a damage risk of circuit caused during assembling
- The specification could be customized
- Functional device which prevents thread damage caused by inflow of tin in SMT process

43 SERIES SMT STYLE



Material and Finish

**Knob:**  
6000 Series aluminum.

**Screw:**  
Carbon steel, zinc finish.

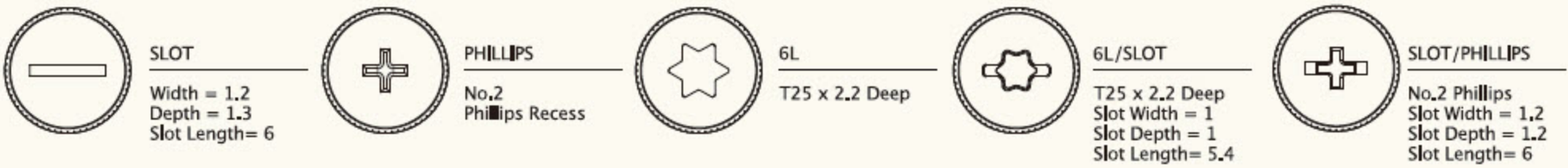
**Spring:**  
300 Series stainless steel.

**Ferrule:**  
Carbon steel, tin finish.

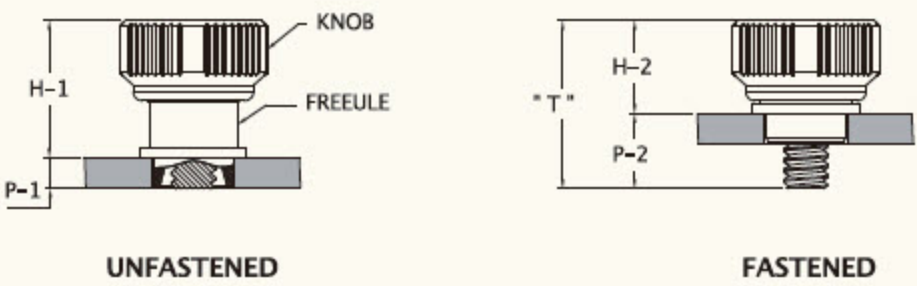
Reel



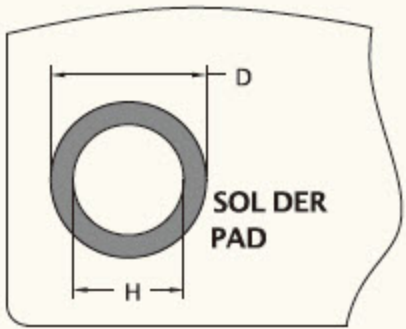
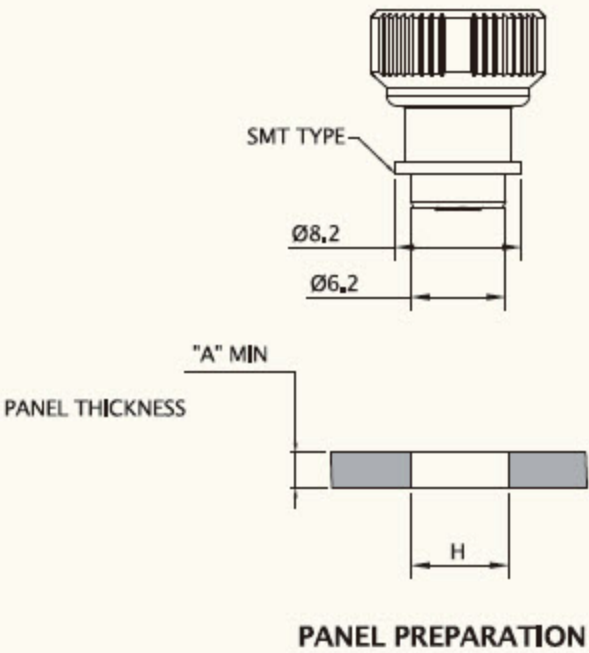
■ Recess Style



■ Knob Height and Screw Projection



■ Installation Style



Thread Size	Ø“H”HOLE SIZE IN SHEET	Ø“D”MIN SOLDER PAD
M3.5	6.4 <sup>+0.08</sup> <sub>-0</sub> (.252 <sup>+0.003</sup> <sub>-.000</sub> )	9.0 (.354)
#6-32		

■ Dimensions

mm

Thread	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT		TOTAL FLOAT	PART NUMBER				
	A MIN	A MAX	T	P-1	P-2	H-1	H-2		Slot Recess	Phillips Recess	6L Recess	6L/Slot Recess	Slot/Phillips Recess
M3.5	1.6	~	13.0	2.4	5.8	10.6	7.2	0.3	43-350-120	43-350-220	43-350-320	43-350-420	43-350-520
#6-32									43-450-120	43-450-220	43-450-320	43-450-420	43-450-520
M3.5	2.3	~	13.0	2.4	5.8	10.6	7.2	0.3	43-351-120	43-351-220	43-351-320	43-351-420	43-351-520
#6-32									43-451-120	43-451-220	43-451-320	43-451-420	43-451-520



- SMT full automatic reflux welding process can increase production stability and production efficiency
- Welding for reinstallation can increase product reliability
- Reduce a damage risk of circuit caused during assembling
- The specification could be customized
- Functional device which prevents thread damage caused by inflow of tin in SMT process

49 SERIES



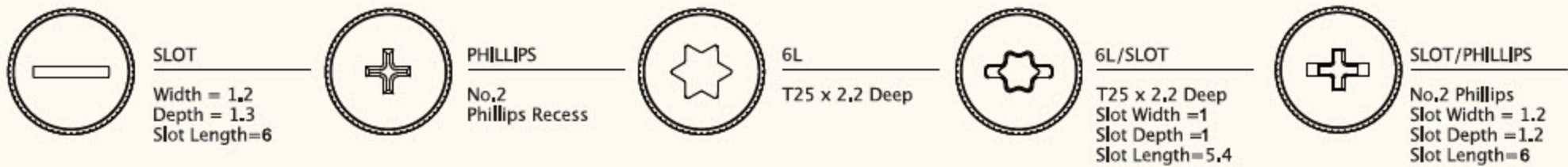
Material and Finish

- Screw:**  
Hardened carbon steel, nickel finish.
- Spring:**  
300 Series stainless steel.
- Ferrule:**  
Carbon steel, tin finish.

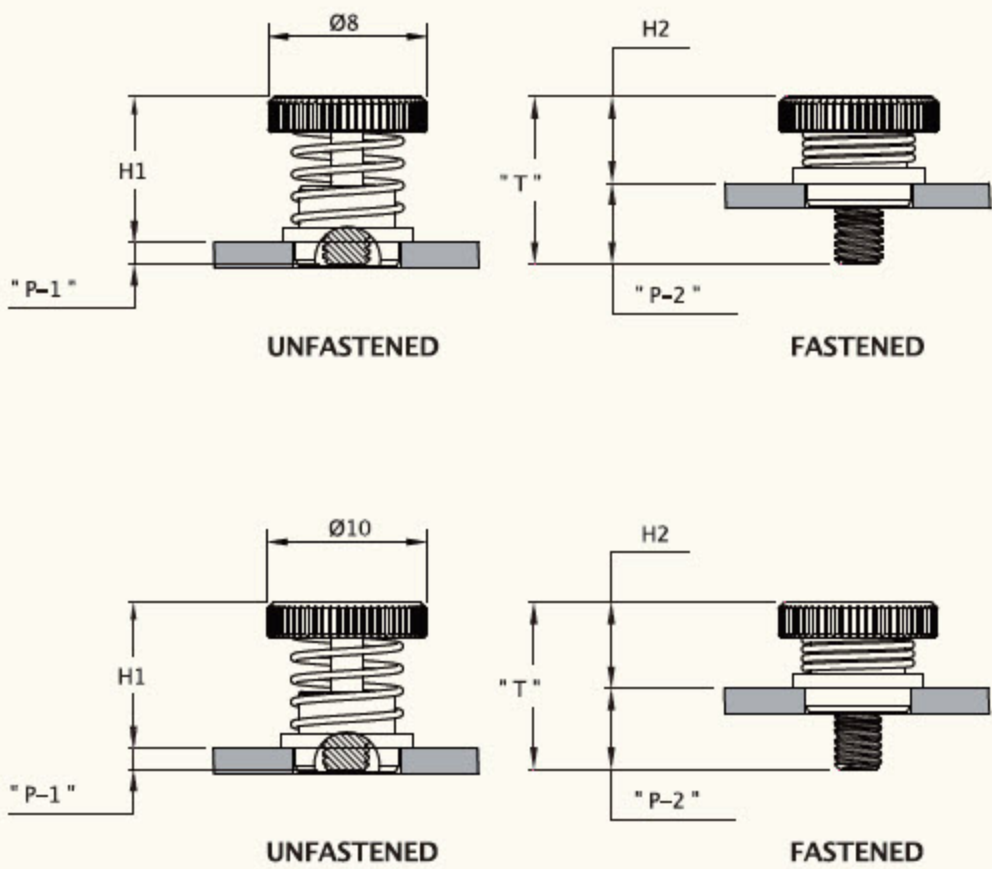
Reel



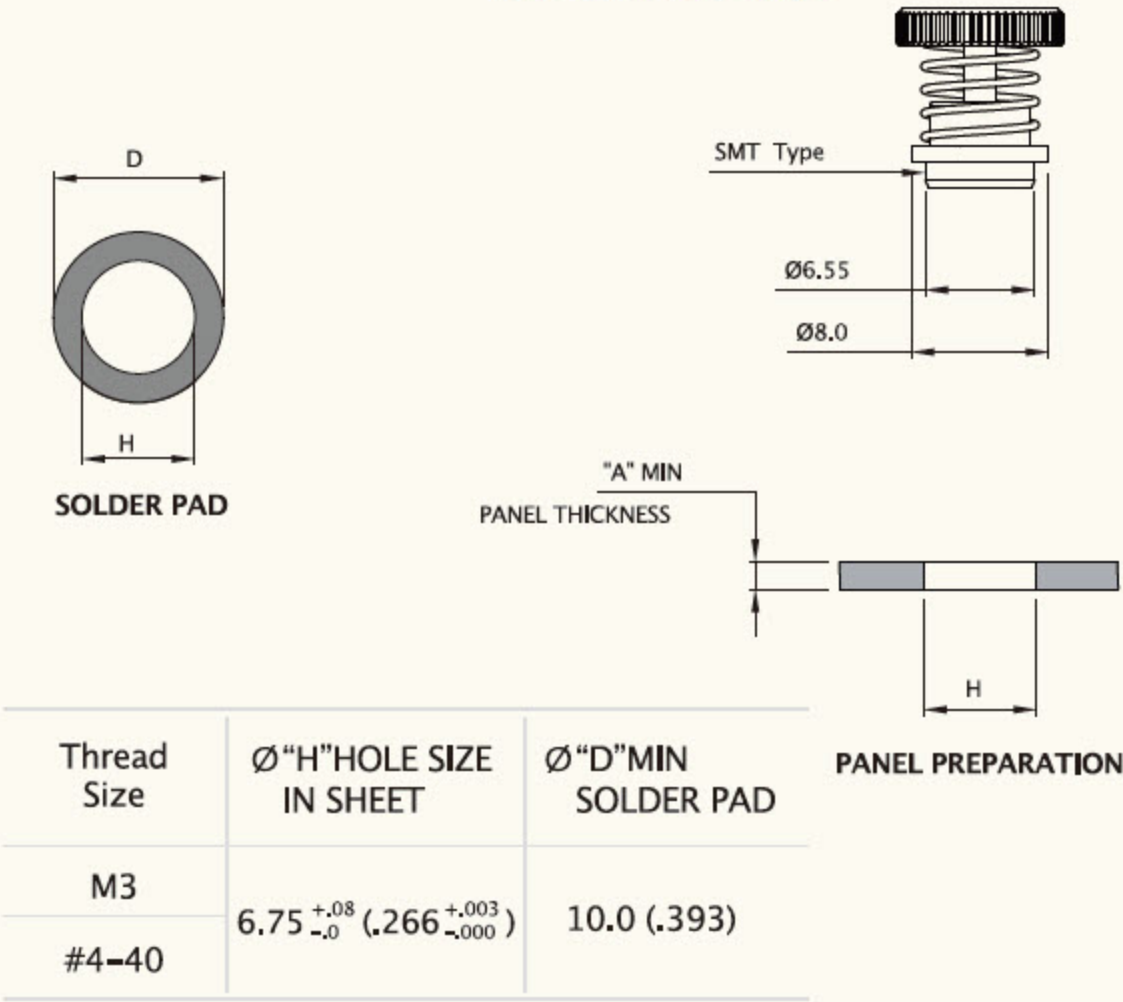
Recess Style



Knob Height and Screw Projection



Installation Style



Dimensions

mm

Thread	OUTER PANEL DIMENSIONS		SCREW PROJECTION			KNOB HEIGHT		TOTAL FLOAT	PART NUMBER				
	A MIN	A MAX	T	P-1	P-2	H-1	H-2		Slot Recess	Phillips Recess	6L Recess	6L/Slot Recess	Slot/Phillips Recess
M3(Ø8)	1.6	~	10.5	1.25	5.0	9.25	5.5	0.3	49-1516-1080-S43-X	49-1516-2080-S43-X	49-1516-3080-S43-X	49-1516-4080-S43-X	49-1516-5080-S43-X
#4-40(Ø8)									49-2516-1080-S43-X	49-2516-2080-S43-X	49-2516-3080-S43-X	49-2516-4080-S43-X	49-2516-5080-S43-X
M3(Ø10)	1.6	~	10.5	1.25	5.0	9.25	5.5	0.3	49-1516-1080-X43-X	49-1516-2080-X43-X	49-1516-3080-X43-X	49-1516-4080-X43-X	49-1516-5080-X43-X
#4-40(Ø10)									49-2516-1080-X43-X	49-2516-2080-X43-X	49-2516-3080-X43-X	49-2516-4080-X43-X	49-2516-5080-X43-X