

## 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.

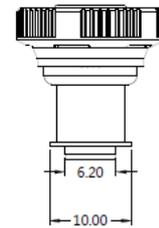
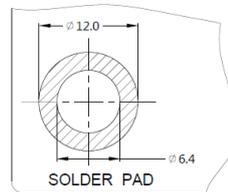
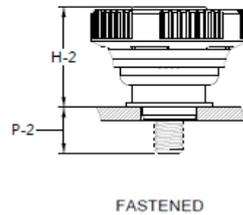
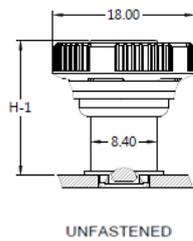
### REEL



### ■ Recess Style

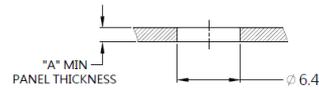
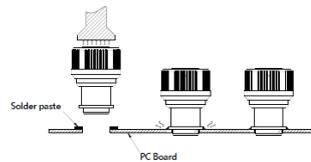
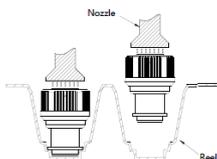


### ■ Knob High and Screw Projection



### ■ 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**



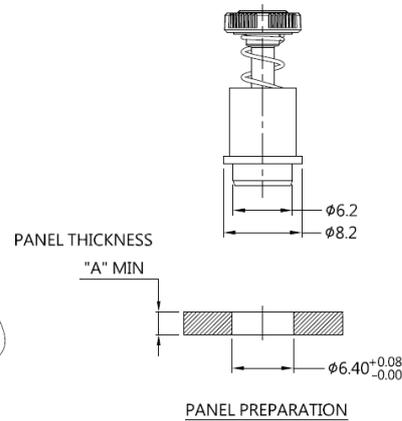
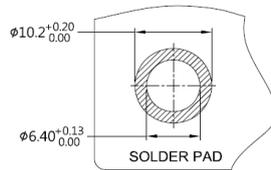
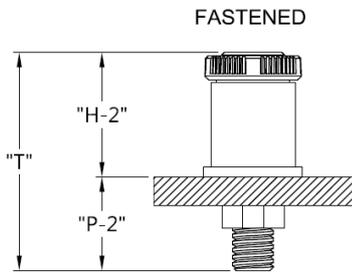
PHILLIPS  
No.2  
Phillips Recess



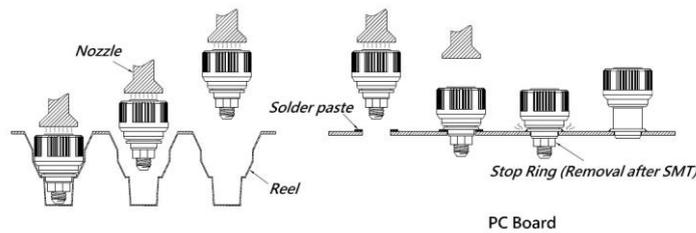
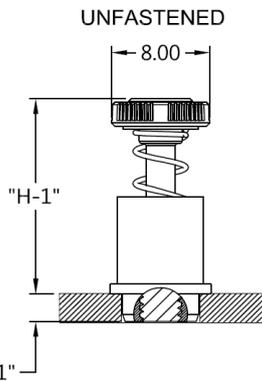
6L  
T15

**Installation Style**

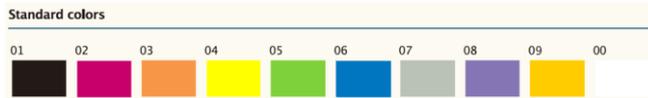
**Knob High and Screw Projection**



**Installation**



**Knob Color Options**



**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

## SMT SERIES

- SMT soldering process improves product reliability
- Automated manufacturing production provides stability and maximizes productivity
- Material of plastic knob can sustain high temperature on SMT process
- Color management is available as required by customers

## SMT Captive Screw- Cloud Type Patented.



### Material and Finish

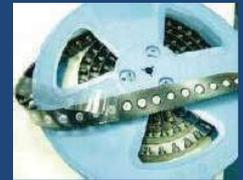
**Knob :**  
6000 Series Aluminum, Plastic

**Screw :**  
Carbon Steel, Zinc Finish

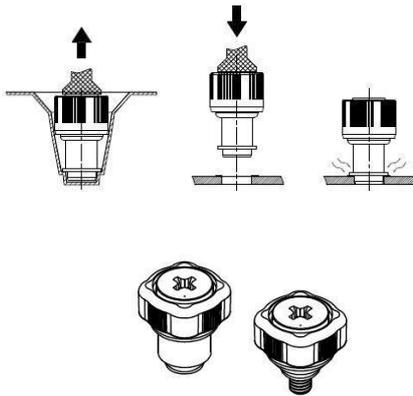
**Spring :**  
300 Series Stainless Steel, Natural Finish

**Ferrule :**  
Carbon Steel, Tin Finish

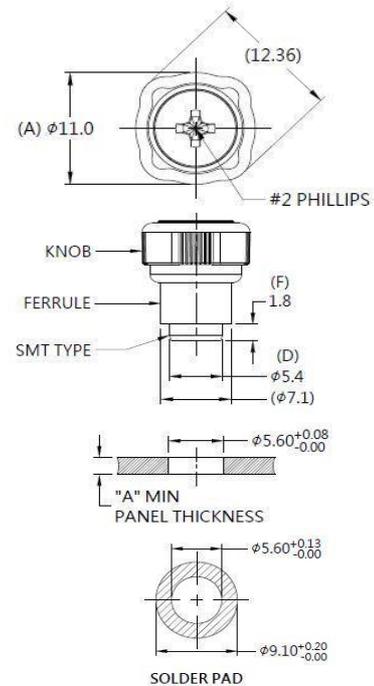
### Reel



### Installation



### Panel Preparation



### Color Options



### Dimensions (mm)

SCREW LENGTH "T"	SCREW PROJECTION		PANEL THICKNESS		DIMENSINOS	
	"P-1"	"P-2"	"A" MIN	"A" MAX	" L "	" B "
12.6	1.3	5.0	1.9	~	/	/

**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 Low Profile SMT Captive Screw Ø10mm** patented.



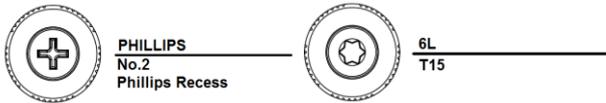
**Material and Finish**

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

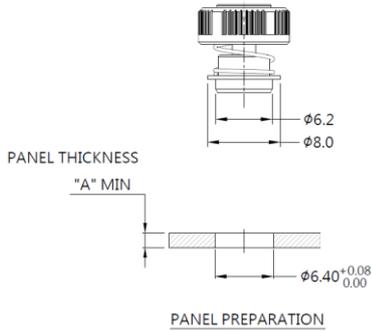
**Reel**



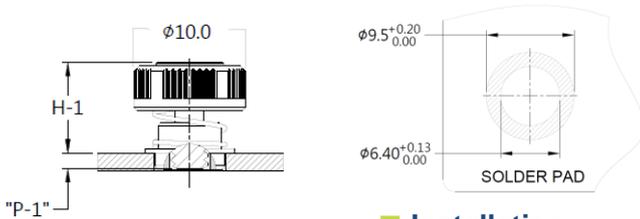
■ **Recess Style**



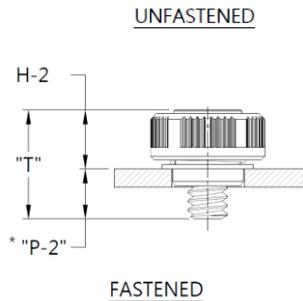
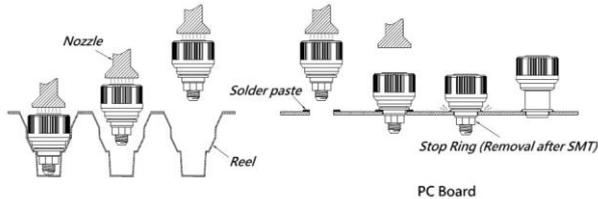
■ **Installation Style**



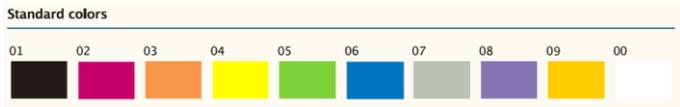
■ **Knob High and Screw Projection**



■ **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.

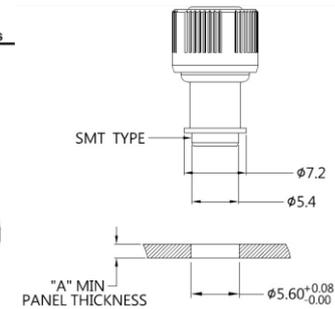
### Reel



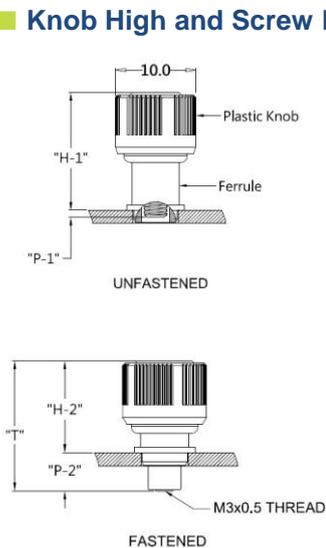
### Recess Style



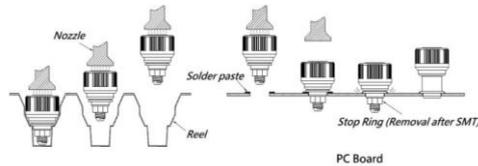
### Installation Style



### 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.

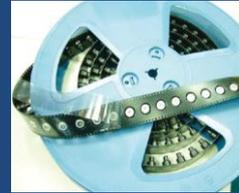
**Screw :**  
Carbon Steel, Zinc Finish.

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

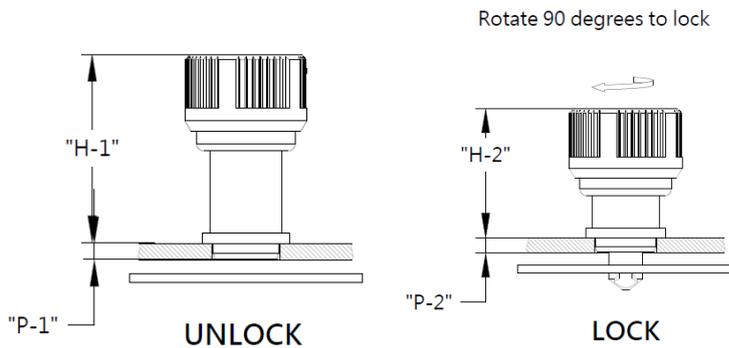
**Ferrule :**  
Carbon Steel, Tin Finish.

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

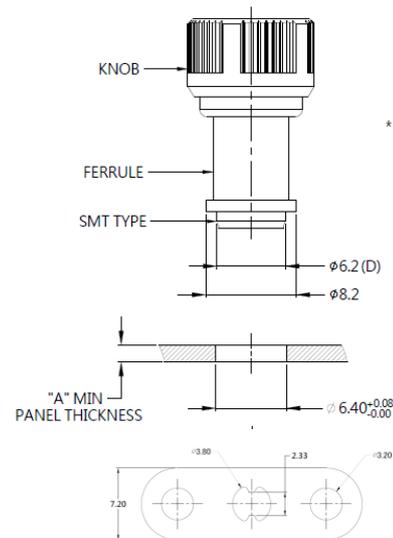
#### REEL



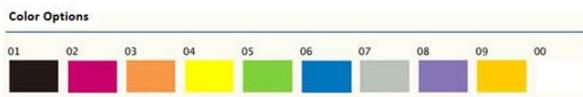
#### Knob High and Screw Projection



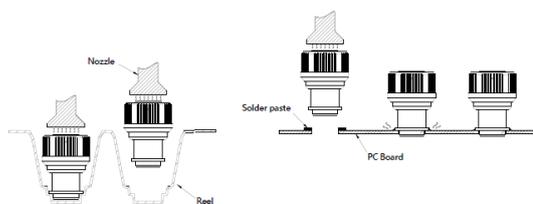
#### Installation Style



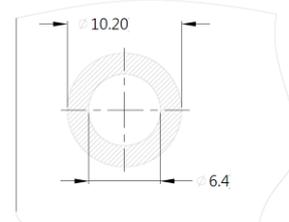
#### Knob Color Options



#### 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 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

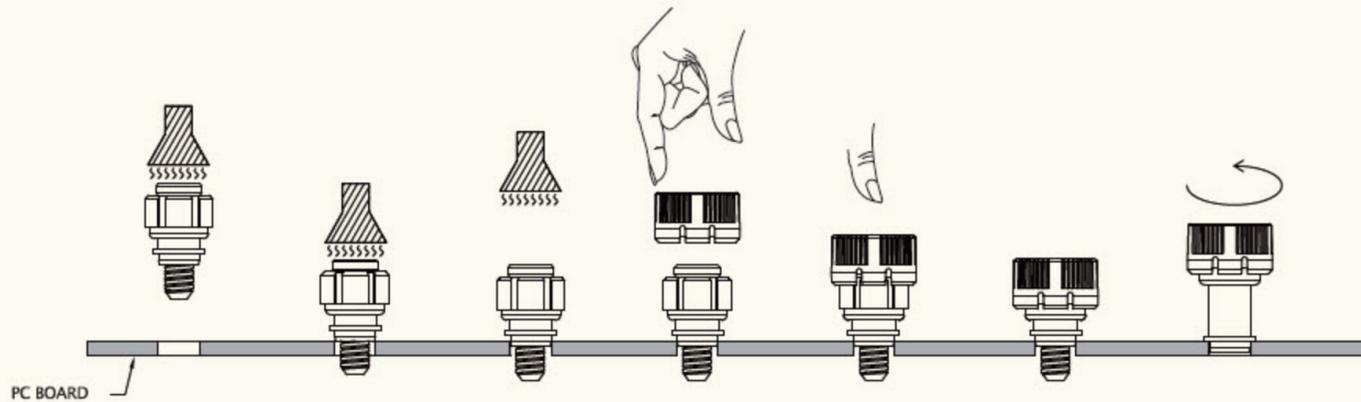
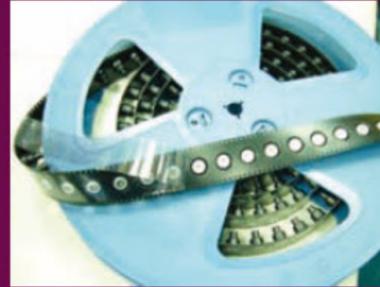
## 21 SERIES SMT STYLE



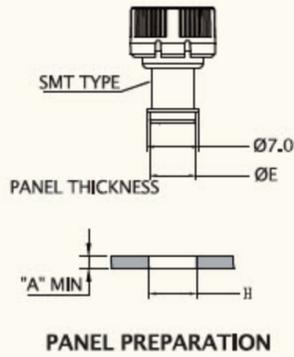
### Material and Finish

- 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



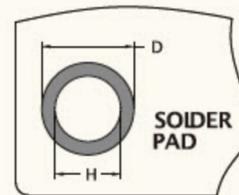
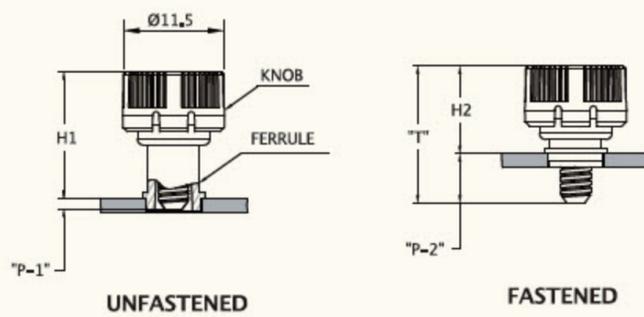
### Installation Style



### 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



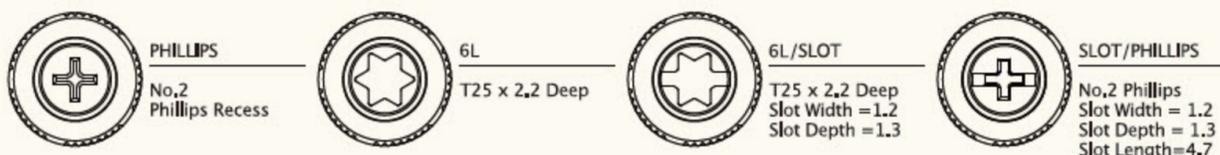
### Material and Finish

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

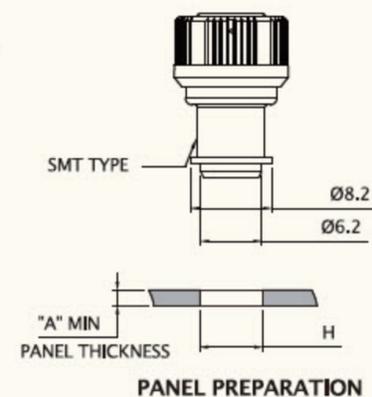
### Reel



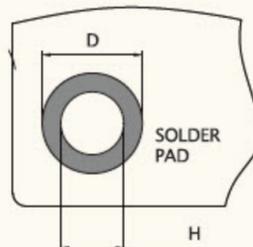
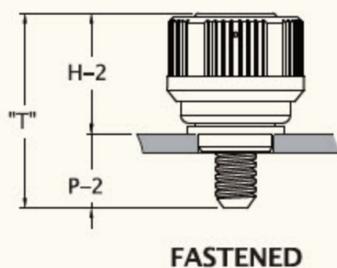
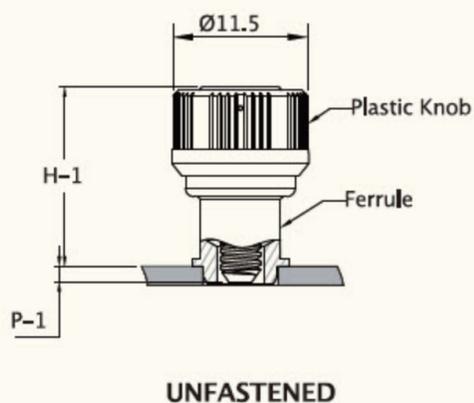
### Recess Style



### Installation Style



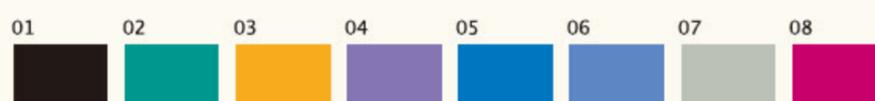
### Knob Height and Screw Projection



Thread Size	ØD	Clearance Hole +0,2 (+,008) -0,1 (-,004)
M3.5	6.4 <sup>+0,8</sup> <sub>-0</sub> (.252 <sup>+0,003</sup> <sub>-,000</sub> )	9.0(.354)
#6-32		

### Knob Color Options

#### Standard colors



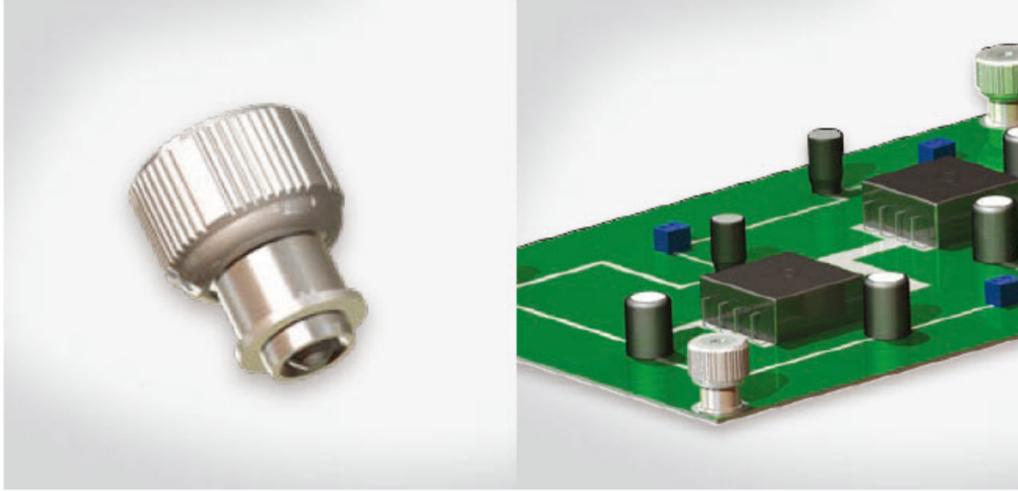
### Dimensions

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



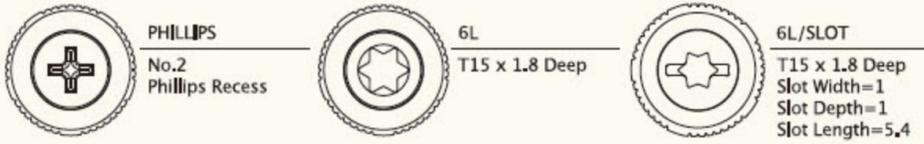
### Material and Finish

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

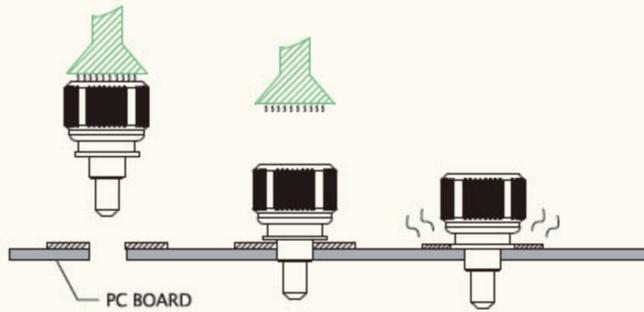
### Reel



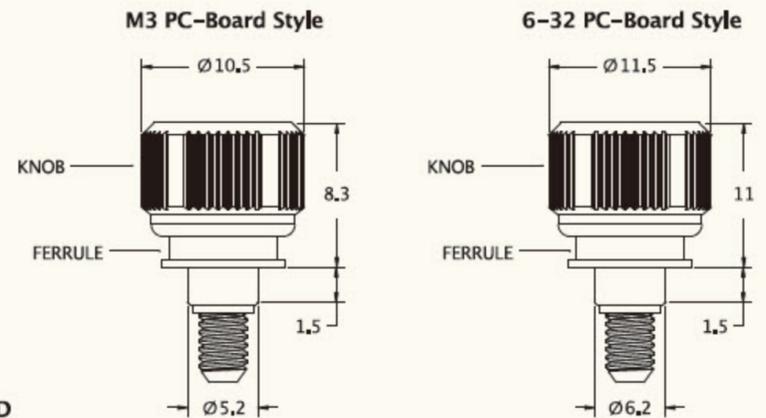
### Recess Style



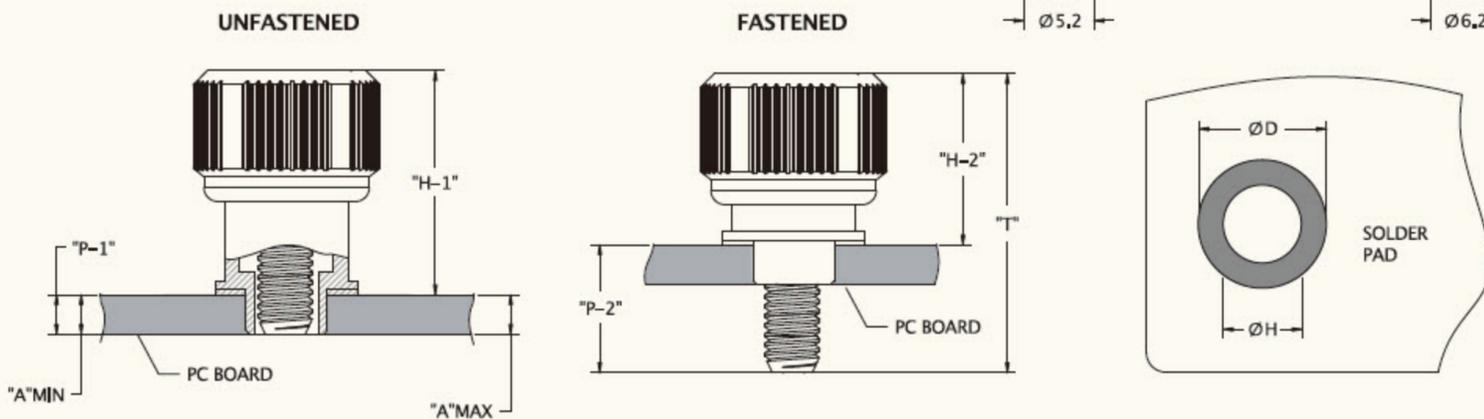
### SMT Installation



### Installation Package



### 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



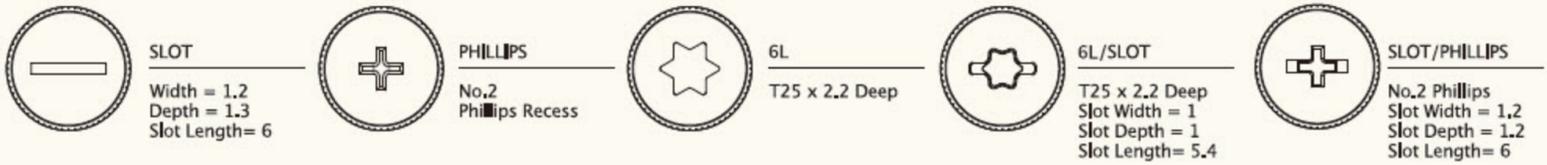
### Material and Finish

- Knob:** 6000 Series aluminum.
- Screw:** Carbon steel, zinc finish.
- Spring:** 300 Series stainless steel.
- Ferrule:** Carbon steel, tin finish.

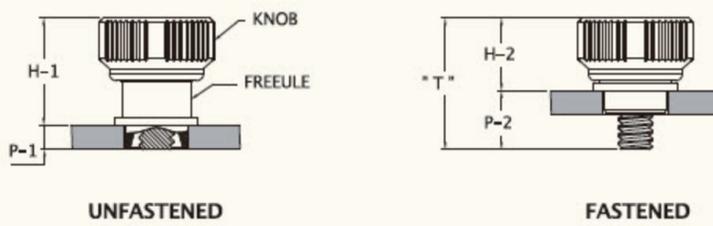
### Reel



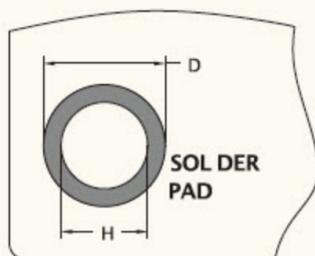
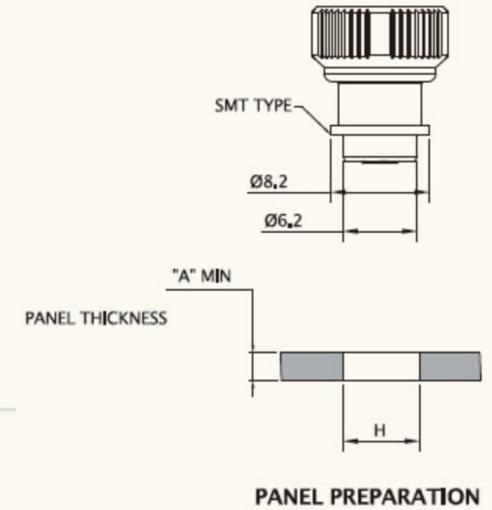
### ■ Recess Style



### ■ 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> )
#6-32		9.0 (.354)

### ■ 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 reinstalation 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

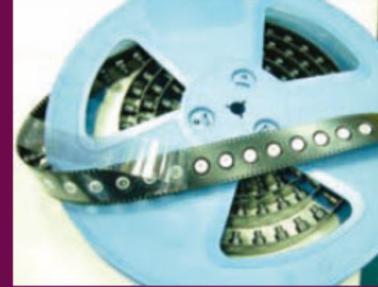
## 49 SERIES



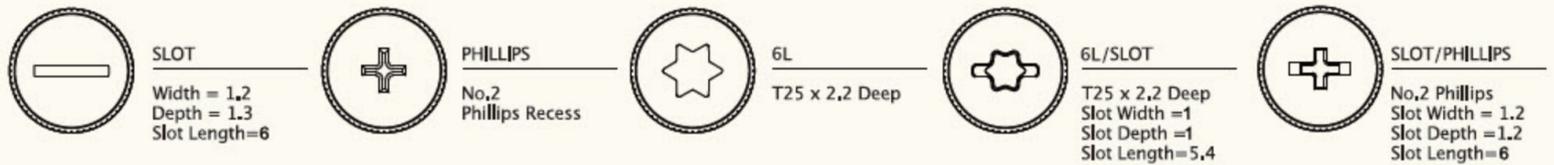
### Material and Finish

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

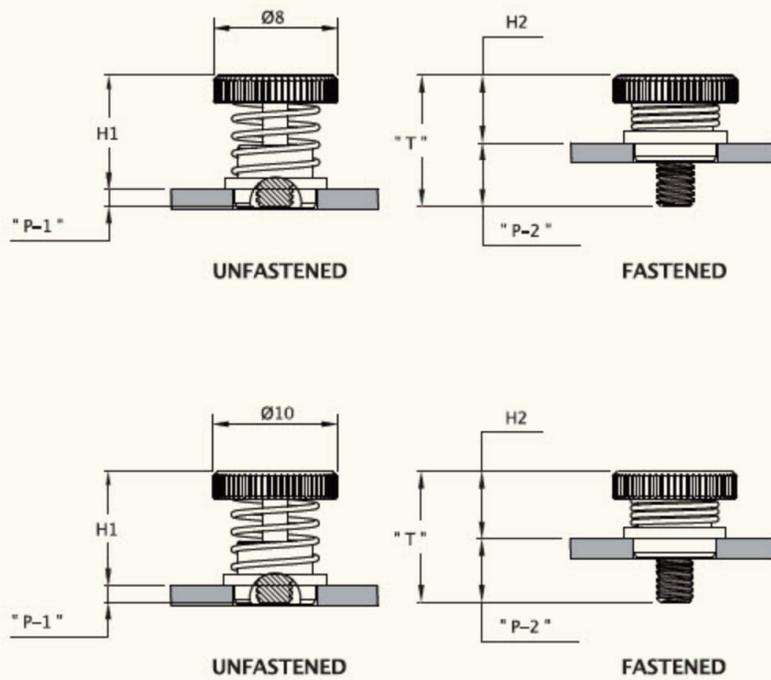
### Reel



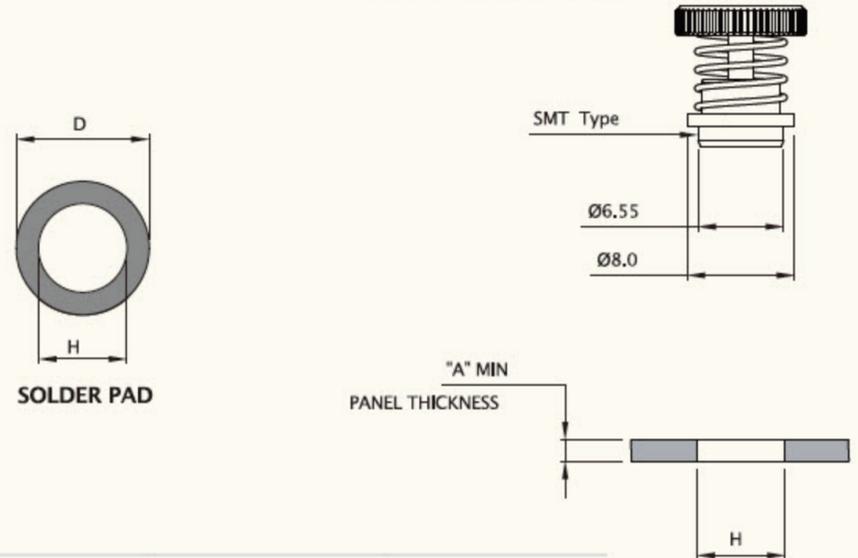
### Recess Style



### Knob Height and Screw Projection



### Installation Style



Thread Size	Ø"H"HOLE SIZE IN SHEET	Ø"D"MIN SOLDER PAD
M3	6.75 <sup>+0.08</sup> <sub>-0</sub> (.266 <sup>+0.003</sup> <sub>-0.000</sub> )	10.0 (.393)
#4-40		

### 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

## 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

## SMT Fastener Screw Patented.



### Material and Finish

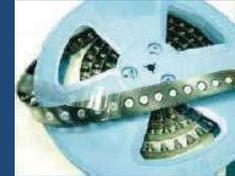
**Knob:**  
6000 Series Aluminum, Plastic

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

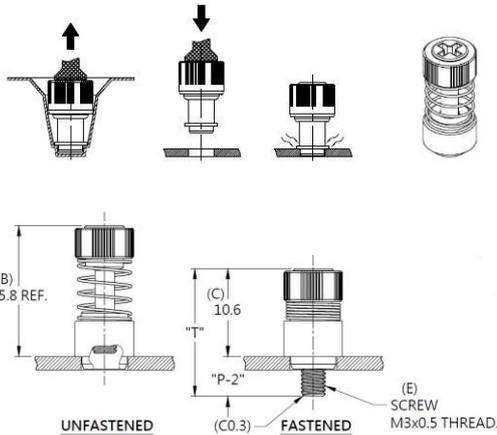
**Spring :**  
300 Series Stainless Steel, Natural Finish.

**Ferrule :**  
Carbon Steel, Tin Finish

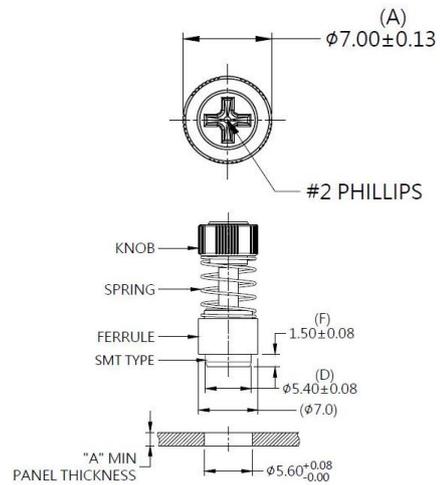
### Reel



### Installation



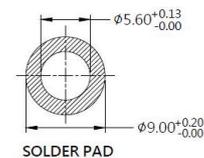
### Panel Preparation



### Color Options



### PANEL PREPARATION



### Dimensions (mm)

SCREW LENGTH "T"	SCREW PROJECTION		PANEL THICKNESS		DIMENSINOS	
	"P-1"	"P-2"	"A" MIN	"A" MAX	" L "	" B "
15.4		4.8	1.6	~		