

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.

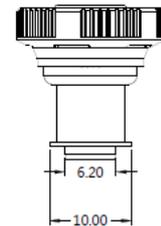
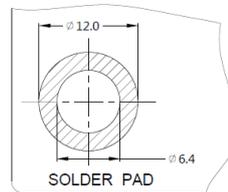
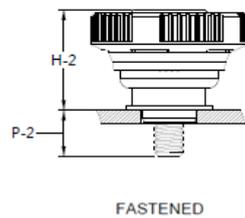
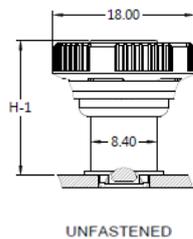
REEL



■ Recess Style

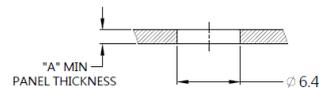
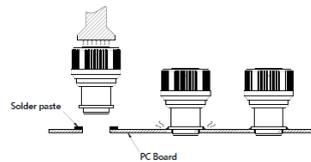
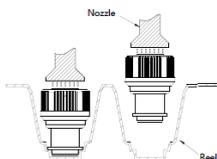


■ Knob High and Screw Projection



■ 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



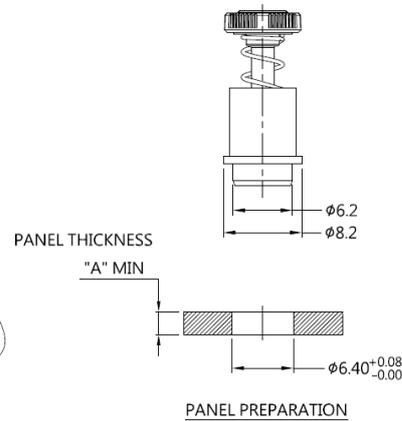
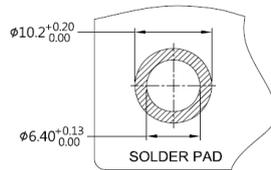
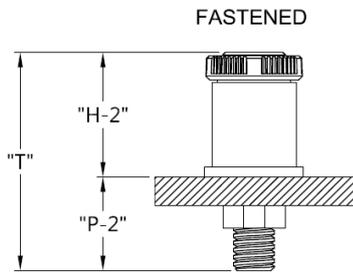
PHILLIPS
No.2
Phillips Recess



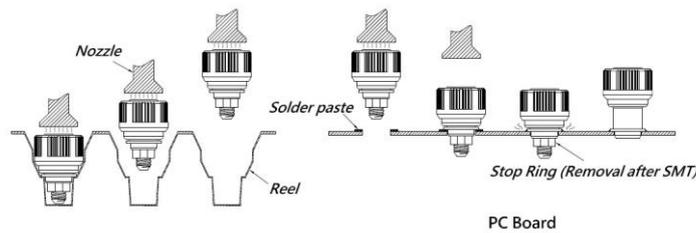
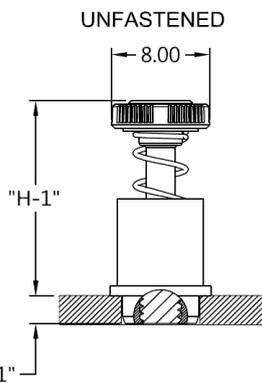
6L
T15

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

- 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.



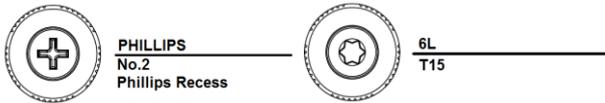
Material and Finish

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

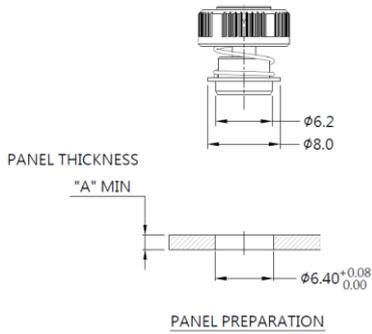
Reel



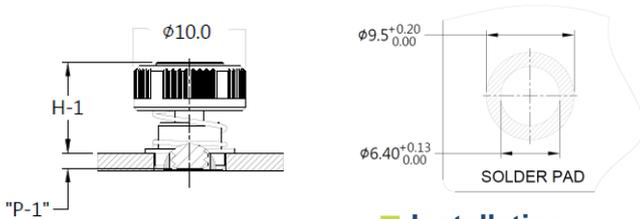
■ **Recess Style**



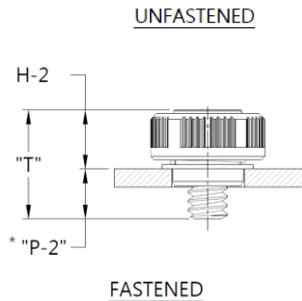
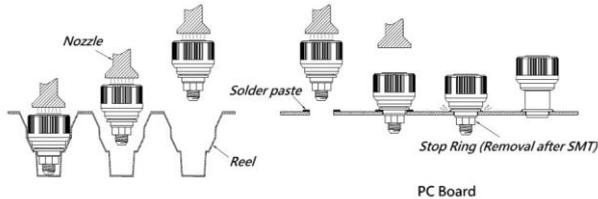
■ **Installation Style**



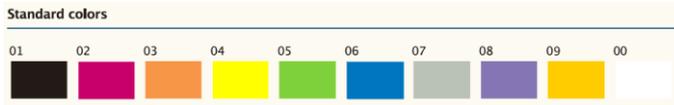
■ **Knob High and Screw Projection**



■ **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.

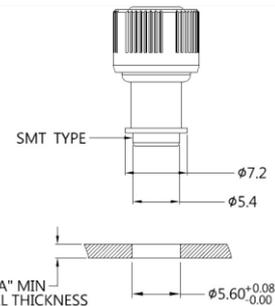
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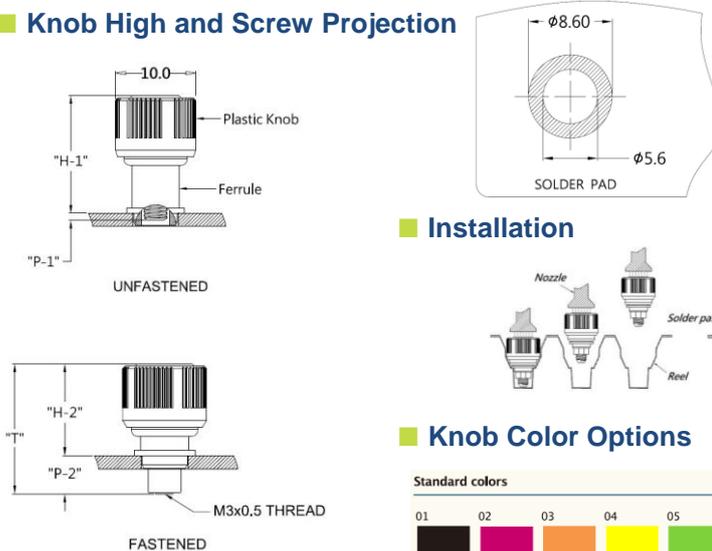
Recess Style



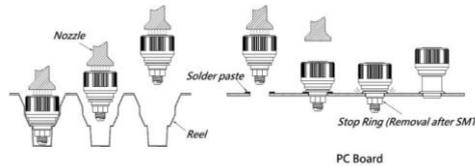
Installation Style



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
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.

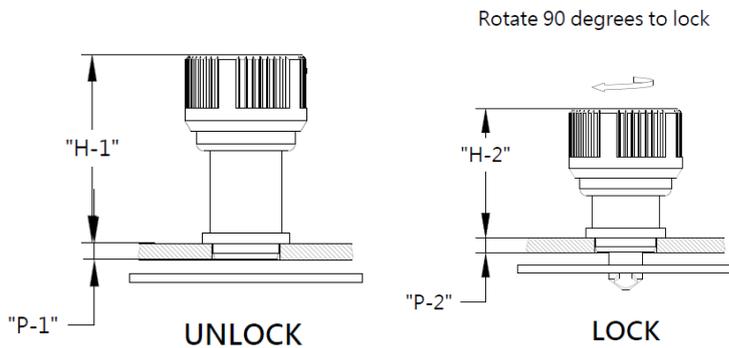
Ferrule :
Carbon Steel, Tin Finish.

Buckle :
Carbon Steel, Tin Finish.

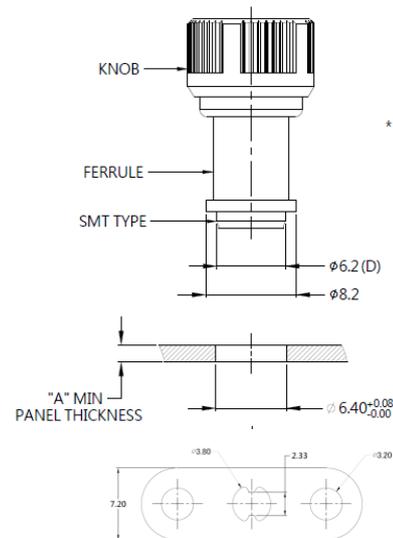
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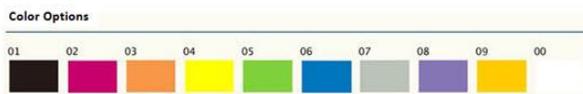
Knob High and Screw Projection



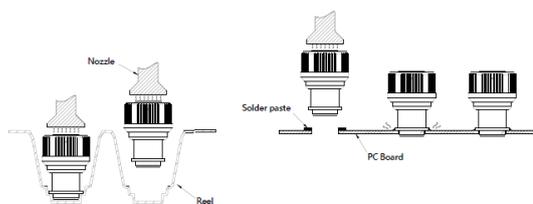
Installation Style



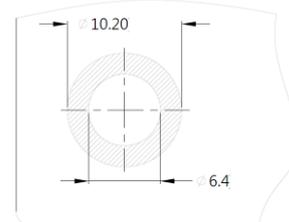
Knob Color Options



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.

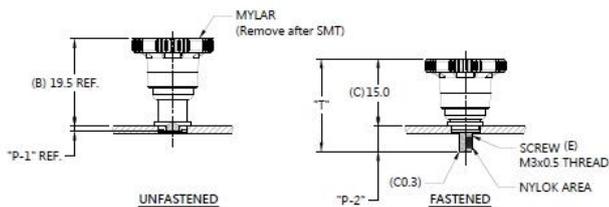
Spring :
300 Series Stainless Steel, Natural Finish.

Ferrule :
Carbon Steel, Tin Finish.

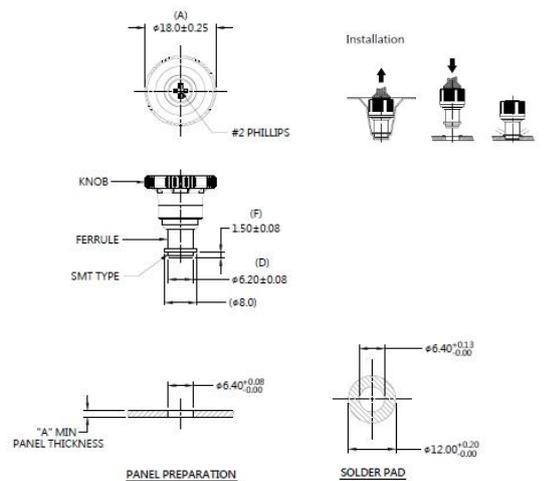
Recess Style



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

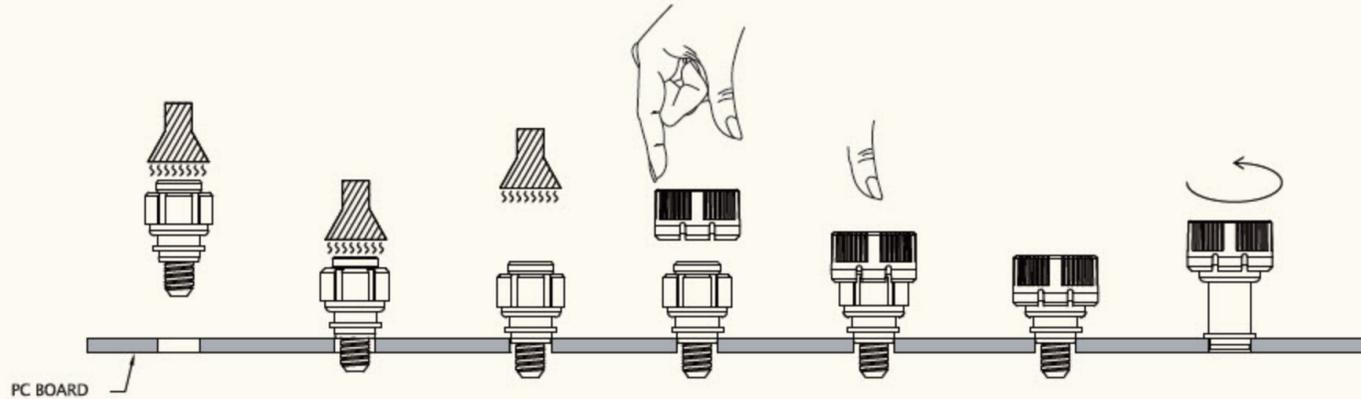
21 SERIES SMT STYLE



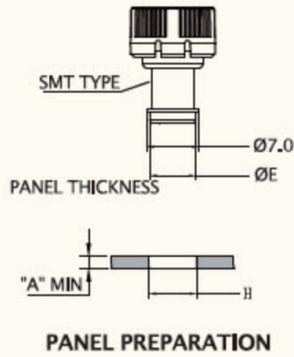
Material and Finish

- 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



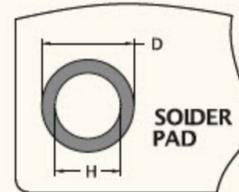
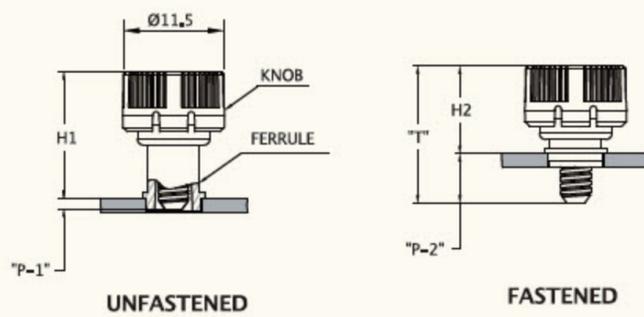
Installation Style



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 ^{+0.08} / ₋₀ (.224 ^{+0.003} / _{-0.000})	7.8(.307)
#4-40			
M3.5	Ø6.2	6.4 ^{+0.08} / ₋₀ (.252 ^{+0.003} / _{-0.000})	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



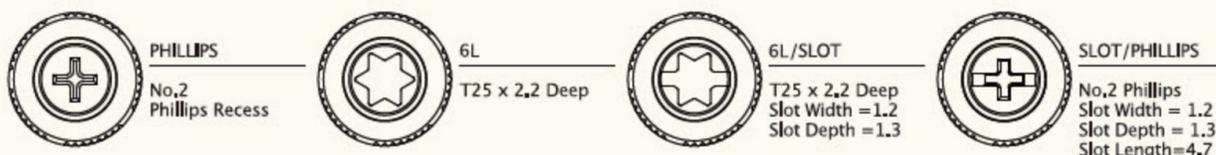
Material and Finish

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

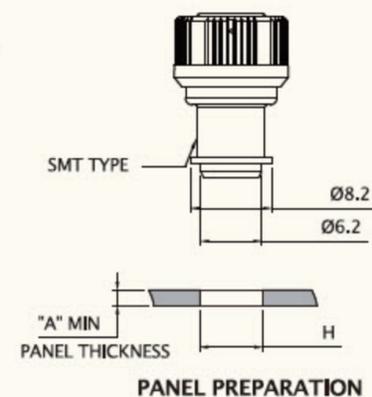
Reel



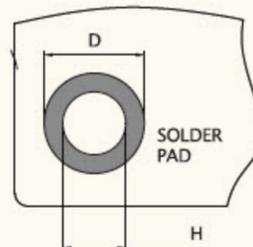
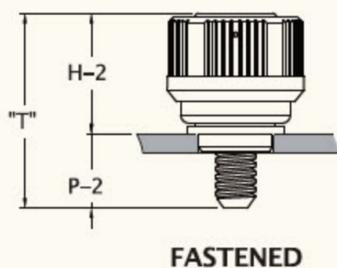
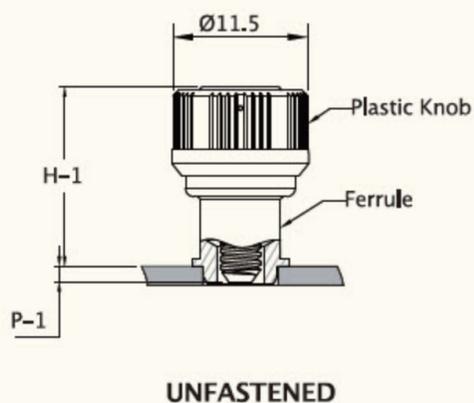
Recess Style



Installation Style



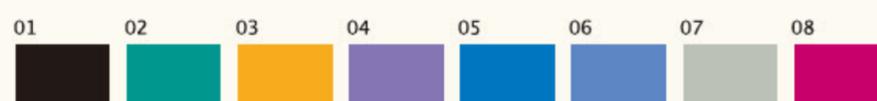
Knob Height and Screw Projection



Thread Size	ØD	Clearance Hole +0,2 (+,008) -0,1 (-,004)
M3.5	6.4 ^{+0,8} ₋₀ (.252 ^{+0,003} _{-,000})	9.0(.354)
#6-32		

Knob Color Options

Standard colors



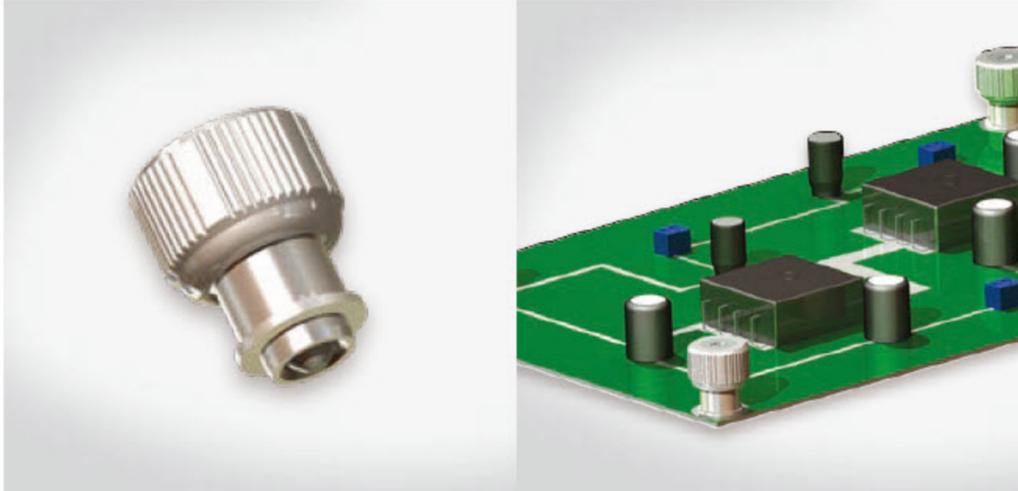
Dimensions

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.

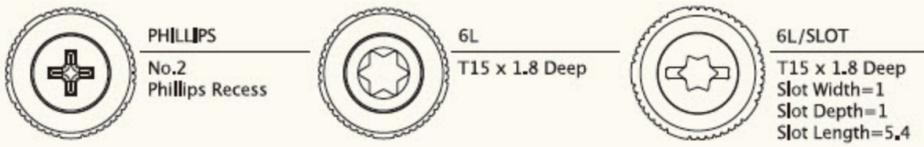
Spring:
300 Series stainless steel.

Ferrule:
Low carbon steel, tin finish.

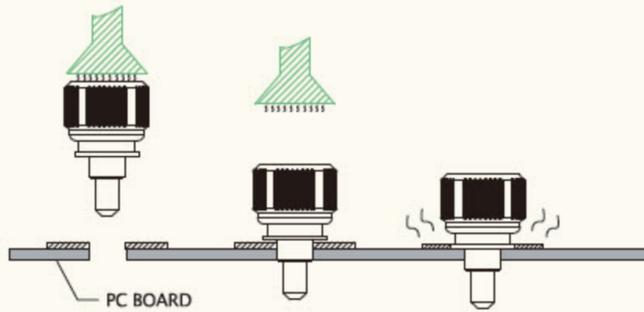
Reel



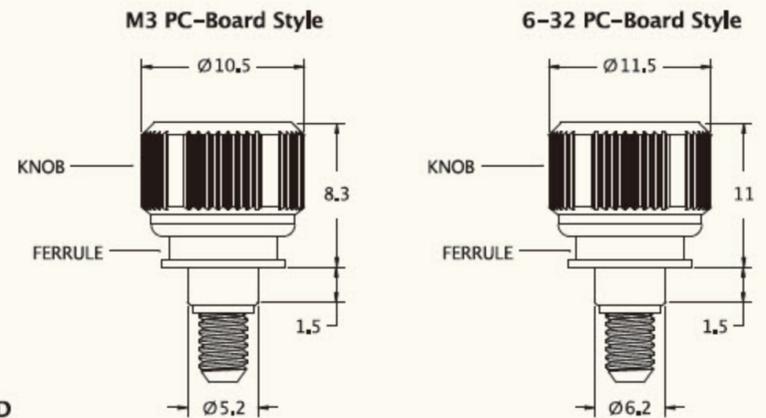
Recess Style



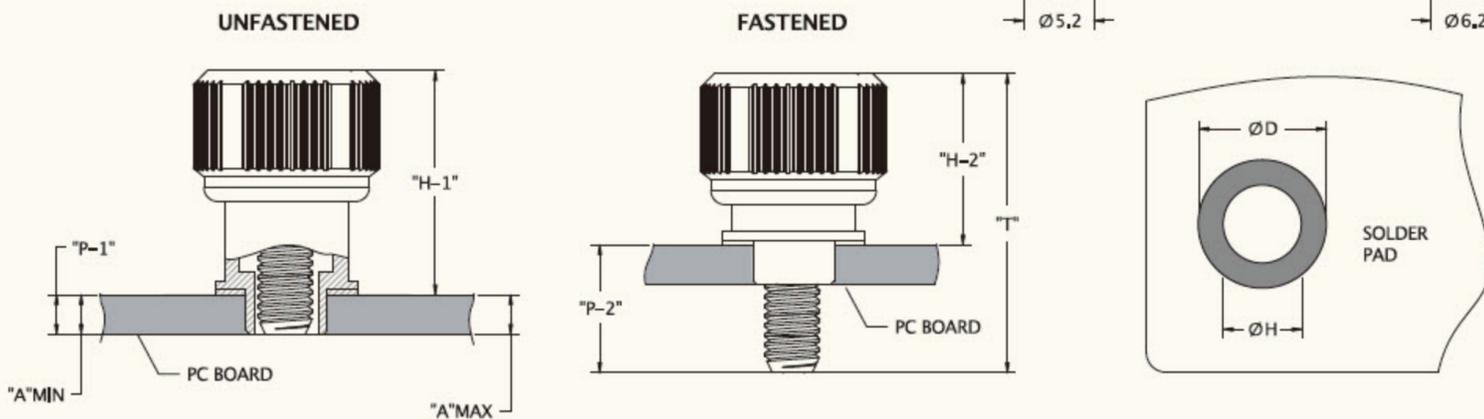
SMT Installation



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



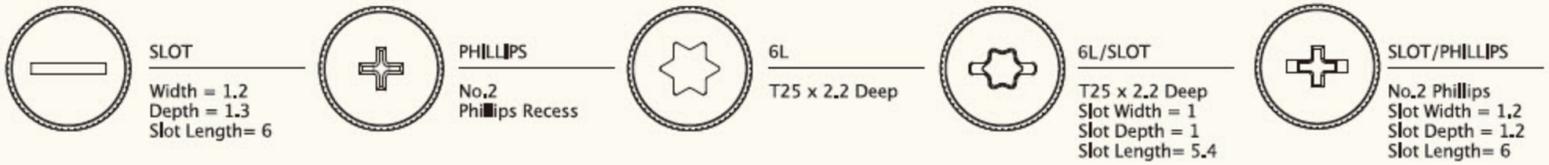
Material and Finish

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

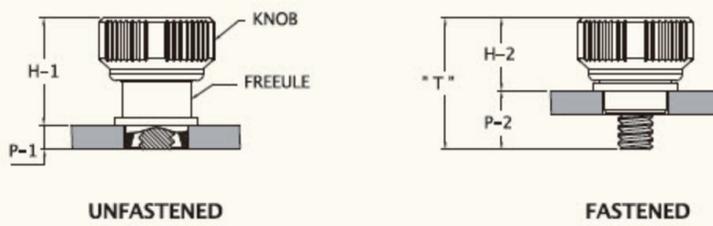
Reel



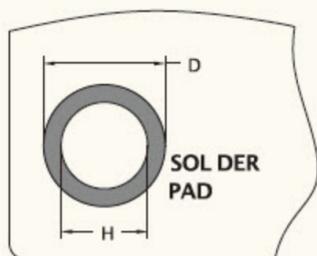
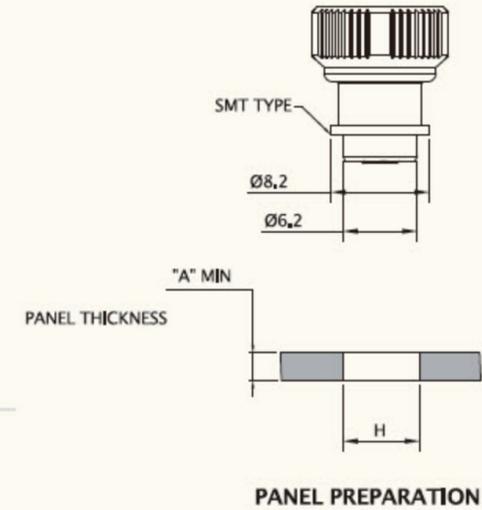
■ Recess Style



■ Knob Height and Screw Projection



■ Installation Style



Thread Size	Ø"H" HOLE SIZE IN SHEET	Ø"D" MIN SOLDER PAD
M3.5	6.4 ^{+0.08} ₋₀	(.252 ^{+0.003} _{-.000})
#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

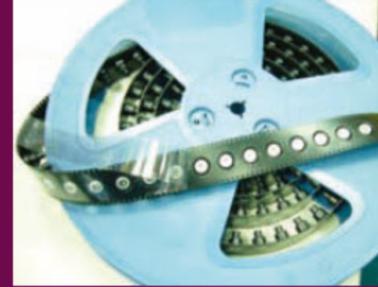
49 SERIES



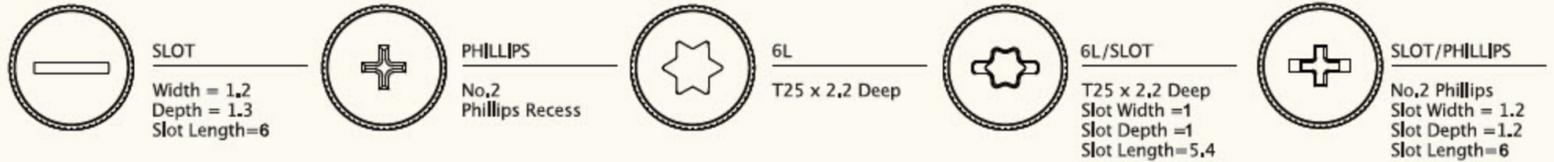
Material and Finish

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

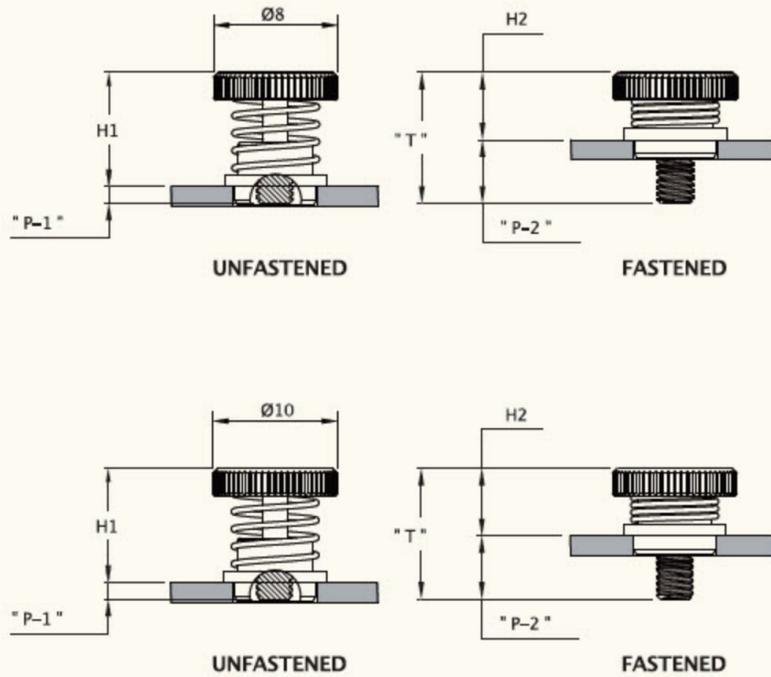
Reel



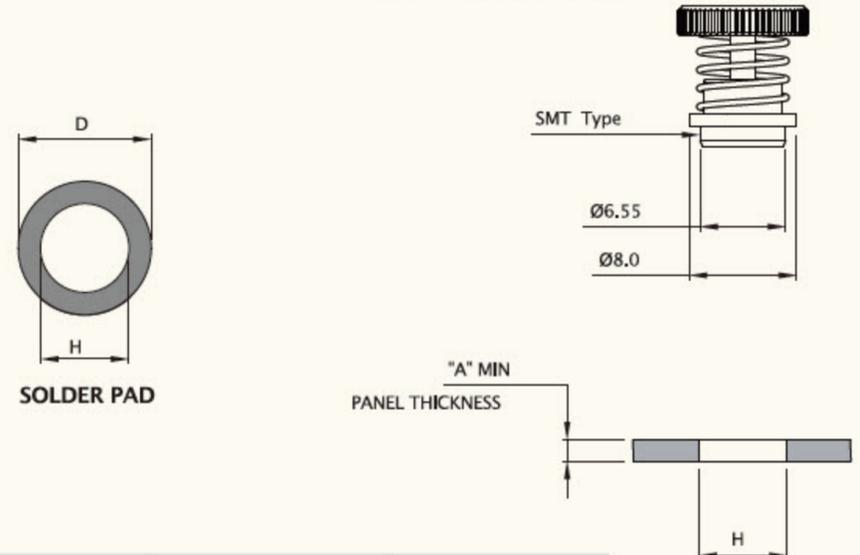
Recess Style



Knob Height and Screw Projection



Installation Style



Thread Size	Ø"H"HOLE SIZE IN SHEET	Ø"D"MIN SOLDER PAD
M3	6.75 ^{+0.08} ₋₀ (.266 ^{+0.003} _{-0.000})	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