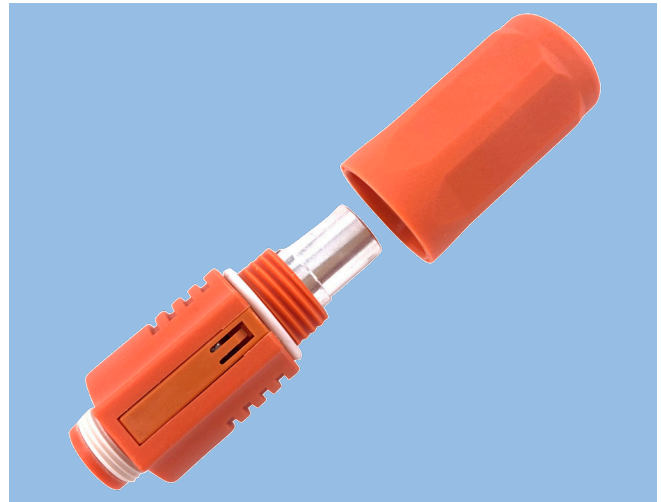
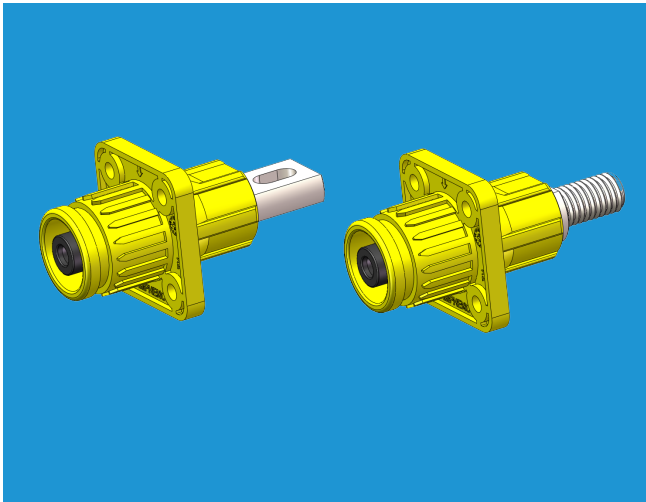
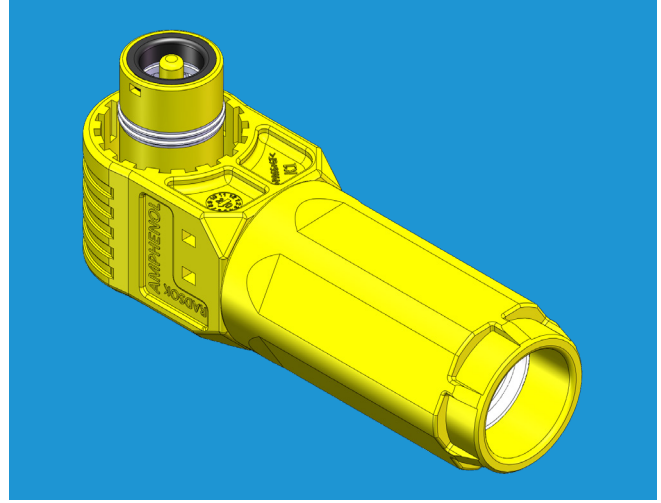
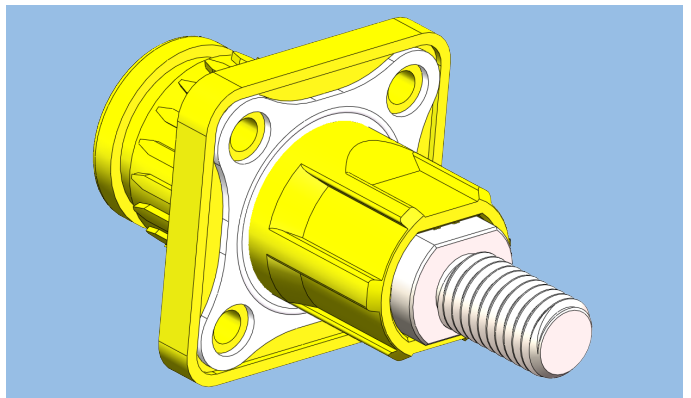
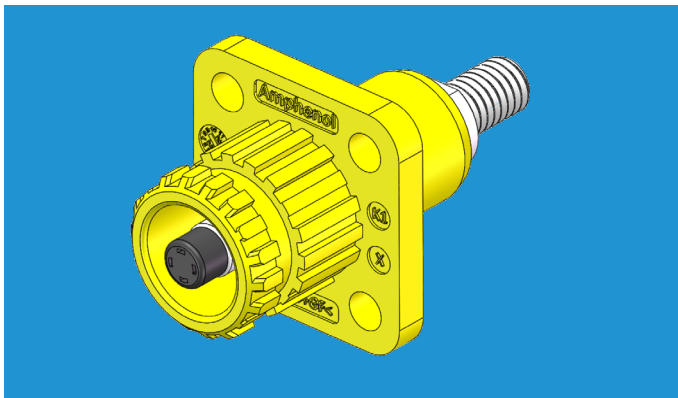


# SurLok Plus™ Assembly Instructions



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CABLE ASSEMBLY WORK INSTRUCTION

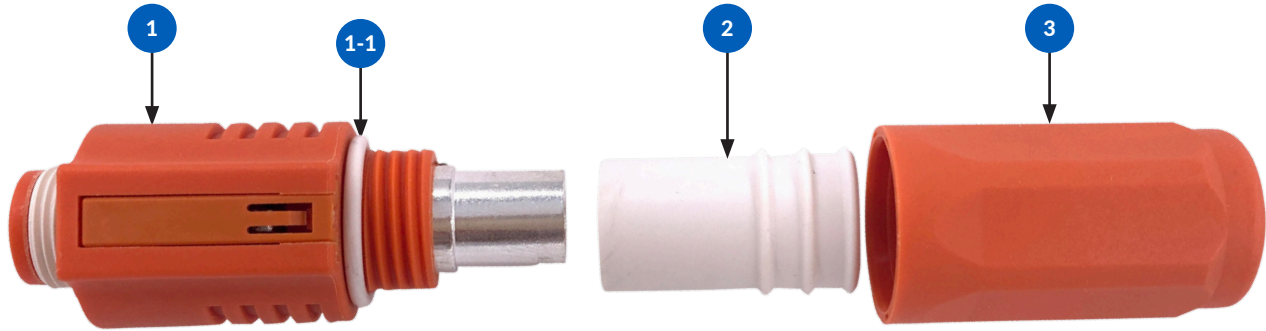
**SurLok Plus™ 5.7mm 1000V**

**Straight Plug**

**Part Number:  
SLPIPA( )B( )( )**



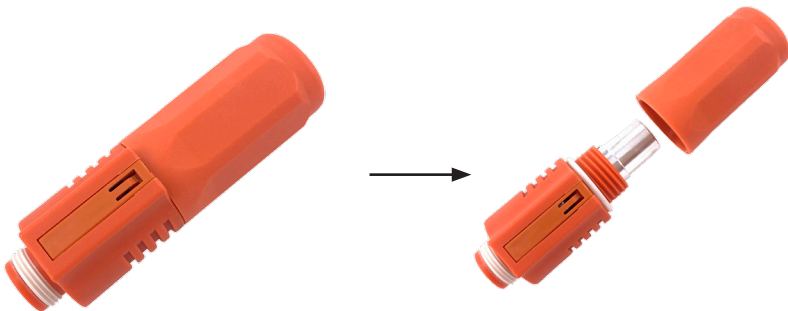
# Part 1: Package Contents



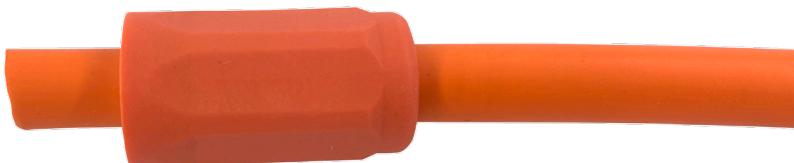
1. Connector Body  
1-1: O-Ring (not included when there is no sealing requirement)
2. Grommet (not included when there is no sealing requirement)
3. Backshell

# Part 2: Plug Assembly

1. Unscrew the backshell (grommet should remain within the backshell)

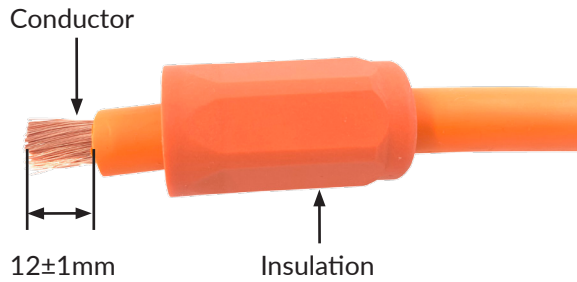


2. Slide the grommet/backshell onto the cable as shown

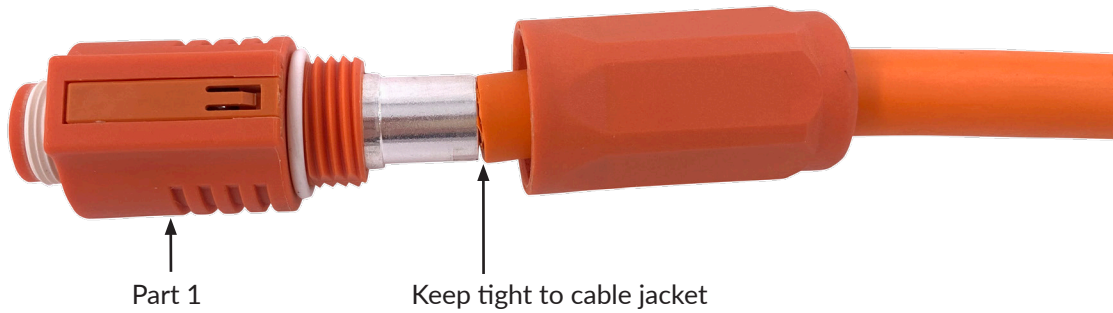


3. Wire cutting and stripping (applies to 16mm<sup>2</sup> & 25mm<sup>2</sup> cables).

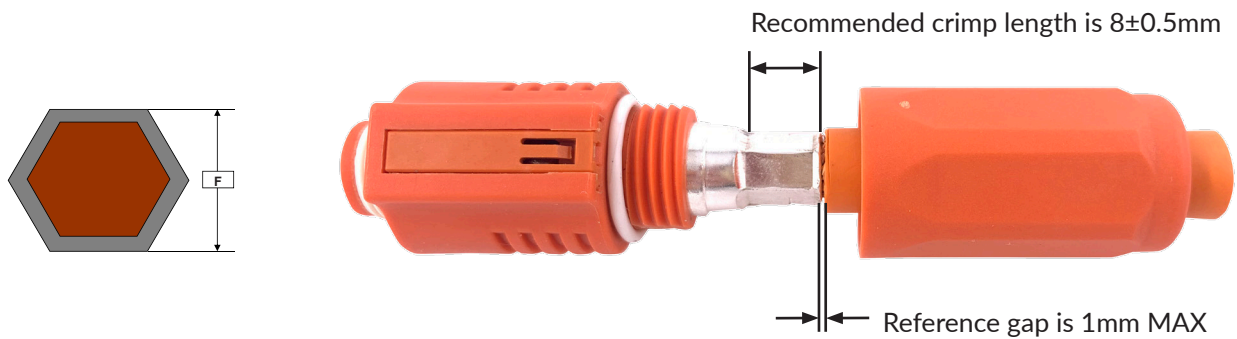
Strip conductor: 12±1mm



4. Install the cable conductor into the connector body lug



5. Crimp wire well as shown below



Cable Size	Cable Range	Recommended crimp dist across Flats F	Cable Pullout Force	Applicable Current
25 mm <sup>2</sup>	10.20±0.20 mm	7.4±0.1mm	1900N Min.	120A Max.
16 mm <sup>2</sup>	8.10±0.20 mm	7.0±0.1mm	1500N Min.	100A Max.

Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to cable specification and crimp tool and test results including temperature rise and metallographic analysis and pullout force.

Recommended crimping tool: Manual hydraulic crimper

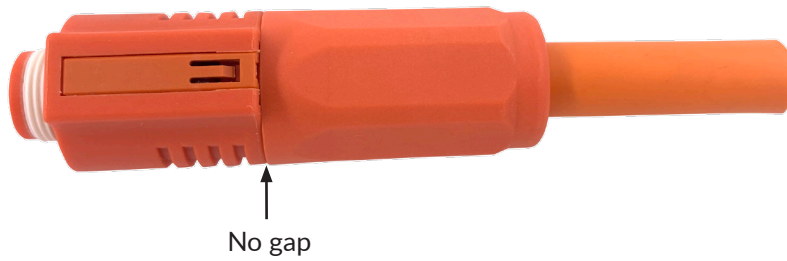
Die: 25mm<sup>2</sup> die for 25mm<sup>2</sup> cable

16mm<sup>2</sup> die for 16mm<sup>2</sup> cable



6. Assemble the grommet and backshell. Tighten backshell to the indicated location shown in the below picture by hand or tool. The recommended torque is shown in the table below.

Recommended torque of rear shell		
Cable Size	Cable O.D.	Torque
16 mm <sup>2</sup>	8.1±0.2 mm	1.0~1.2 N.m
25 mm <sup>2</sup>	10.2±0.2 mm	1.0~1.2 N.m



CABLE ASSEMBLY WORK INSTRUCTION

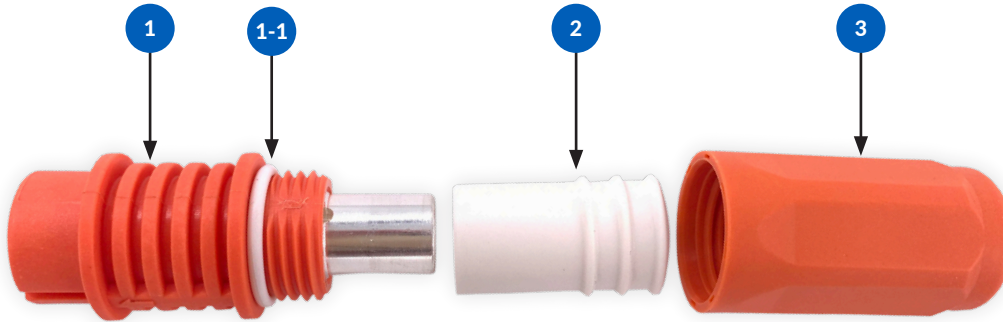
**SurLok Plus™ 5.7mm 1000V**

**Inline Receptacle**

**Part Number:**  
**SLPCRA( )B( )( )**



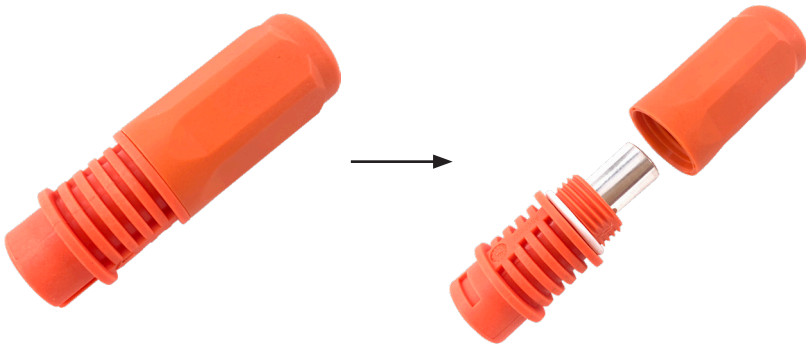
## Part 1: Package Contents



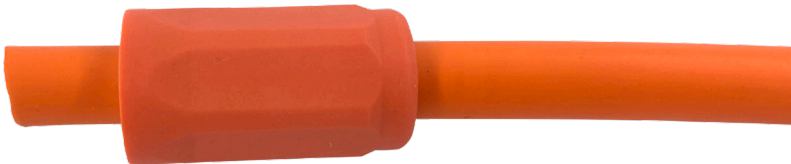
1. Connector Body  
1-1: O-Ring (not included when there is no sealing requirement)
2. Grommet (not included when there is no sealing requirement)
3. Backshell

## Part 2: Receptacle Assembly

1. Unscrew the backshell (grommet should remain within the backshell)



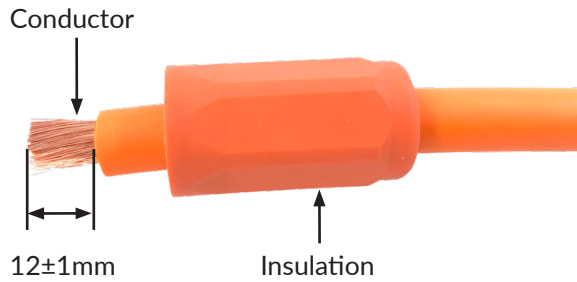
2. Slide the grommet/backshell onto the cable as shown



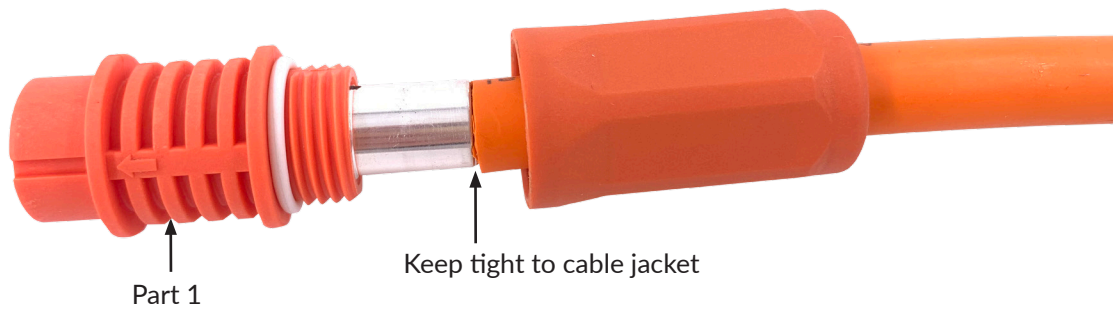


3. Wire cutting and stripping (applies to 16mm<sup>2</sup> & 25mm<sup>2</sup> cables).

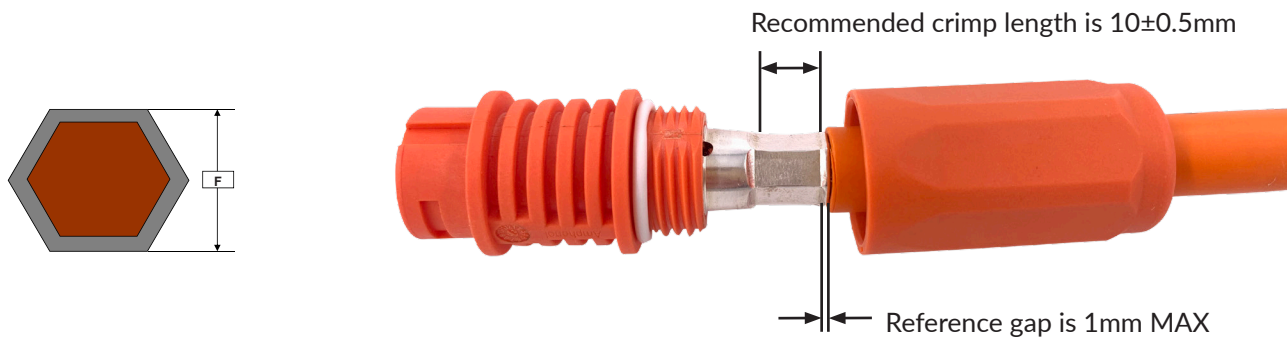
Strip conductor: 12±1mm



4. Install the cable conductor into the connector body lug



5. Crimp wire well as shown below



Cable Size	Cable Range	Recommended crimp dist across Flats F	Cable Pullout Force	Applicable Current
25 mm <sup>2</sup>	10.20±0.20 mm	7.4±0.1 mm	1900N Min.	120A Max.
16mm <sup>2</sup>	8.10±0.20 mm	7.0±0.1 mm	1500N Min.	100A Max.

Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to cable specification and crimp tool. Test results including temperature rise, metallographic analysis, and pullout force.

Recommended crimping tool: Manual hydraulic crimper

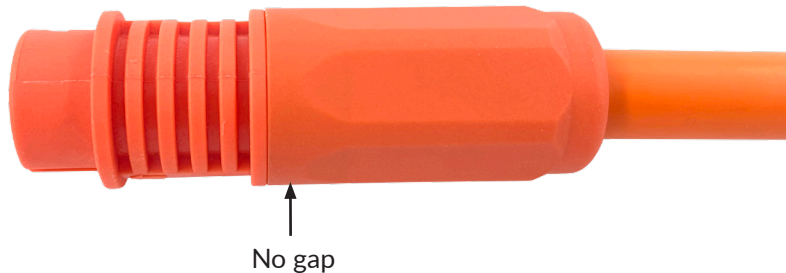
Die: 25mm<sup>2</sup> die for 25mm<sup>2</sup> cable

16mm<sup>2</sup> die for 16mm<sup>2</sup> cable



6. Assemble the grommet and backshell. Tighten backshell to the indicated location shown in the below picture by hand or tool. The recommended torque is shown in the table below.

Recommended torque of rear shell		
Cable Size	Cable O.D.	Torque
25mm <sup>2</sup>	10.2±0.2 mm	1.0~1.2 N.m
16mm <sup>2</sup>	8.1±0.2 mm	1.0~1.2 N.m



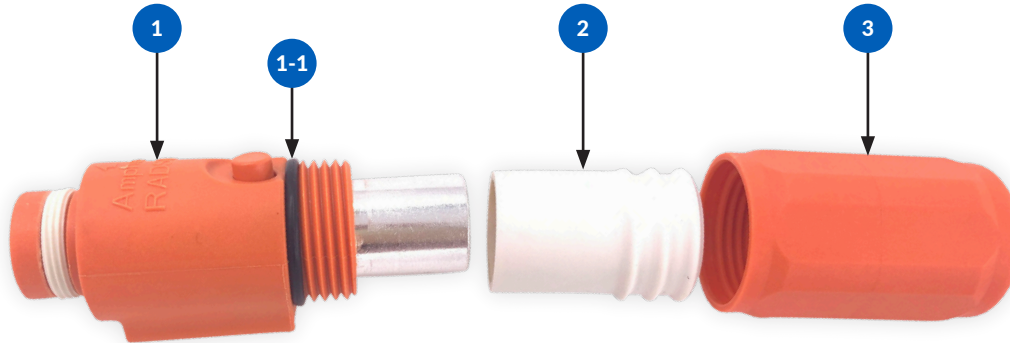
CABLE ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 8.0mm 1000V  
Straight Plug**

**Part Number:  
SLPIPB( )B( )( )**



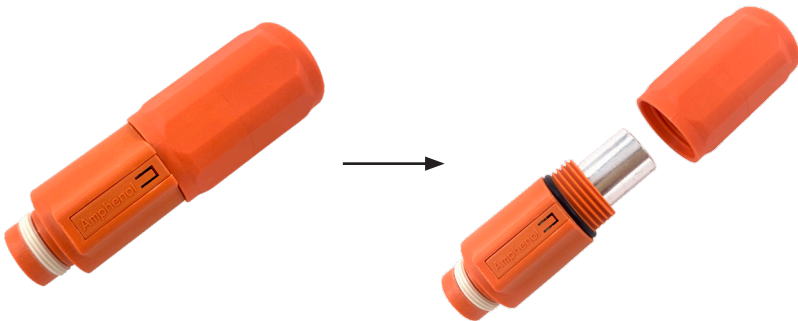
## Part 1: Package Contents



1. Connector Body  
1-1: O-Ring (not included when there is no sealing requirement)
2. Grommet (not included when there is no sealing requirement)
3. Backshell

## Part 2: Plug Assembly

1. Unscrew the backshell (grommet should remain within the backshell)

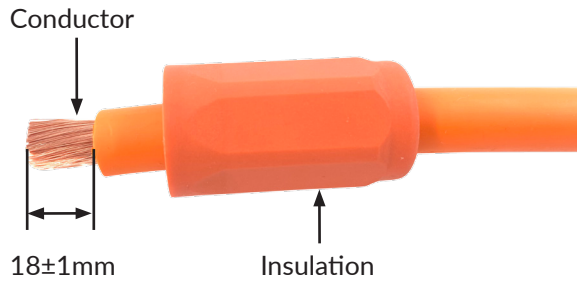


2. Slide the grommet/backshell onto the cable as shown

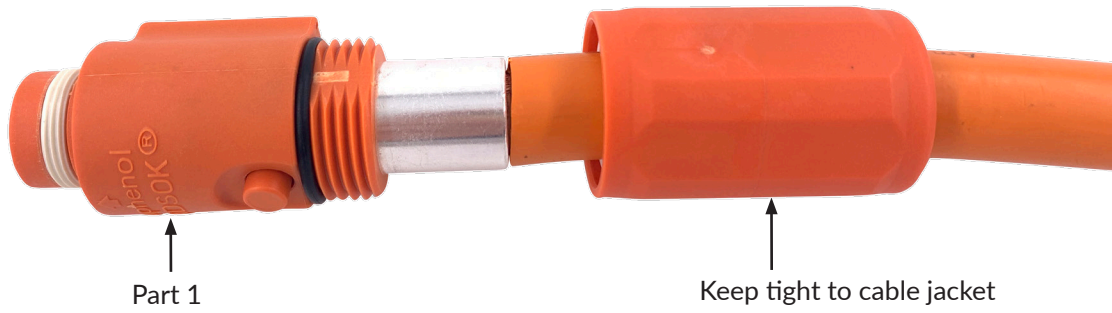


3. Wire cutting and stripping (applies to 16mm<sup>2</sup> & 25mm<sup>2</sup> cables).

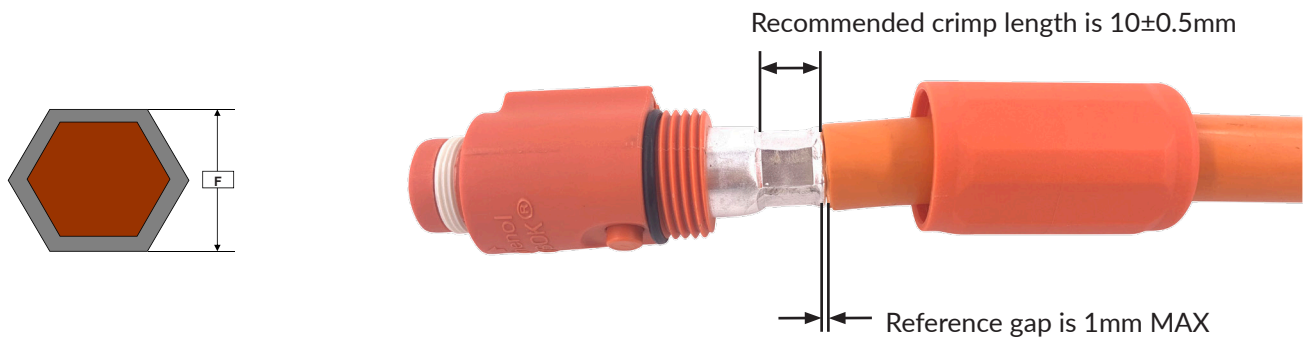
Strip conductor: 18±1mm



4. Install the cable conductor into the connector body lug



5. Crimp wire well as shown below



Cable Size	Cable Range	Recommended crimp dist across Flats F	Cable Pullout Force	Applicable Current
25 mm <sup>2</sup>	10.20±0.20 mm	9.0 ± 0.1mm	1900N Min.	120A Max.
35 mm <sup>2</sup>	11.50±0.30 mm	9.0 ± 0.1mm	2300N Min.	150A Max.
50 mm <sup>2</sup>	13.60±0.30 mm	10.2 ± 0.1mm	2800N Min.	200A Max.

Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to cable specification and crimp tool. Test results including temperature rise, metallographic analysis, and pullout force.

Recommended crimping tool: Manual hydraulic crimper

Die: 25mm<sup>2</sup> die for 25mm<sup>2</sup> cable

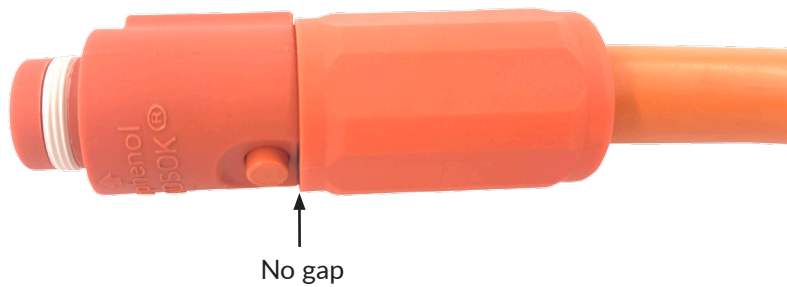
35mm<sup>2</sup> die for 35mm<sup>2</sup> cable

50mm<sup>2</sup> die for 50mm<sup>2</sup> cable



6. Assemble the grommet and backshell. Tighten backshell to the indicated location shown in the below picture by hand or tool. The recommended torque is shown in the table below.

Recommended torque of rear shell		
Cable Size	Cable O.D.	Torque
25mm <sup>2</sup>	10.2±0.2 mm	1.0~1.2 N.m
35mm <sup>2</sup>	11.5±0.3 mm	1.0~1.2 N.m
50mm <sup>2</sup>	13.6±0.3 mm	1.2~1.5 N.m



CABLE ASSEMBLY WORK INSTRUCTION

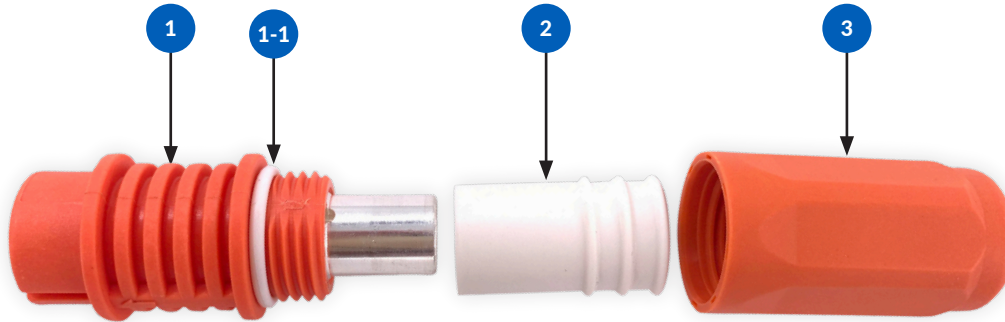
**SurLok Plus™ 8.0mm 1000V**

**Inline Receptacle**

**Part Number:**  
**SLPCRB( )B( )( )**



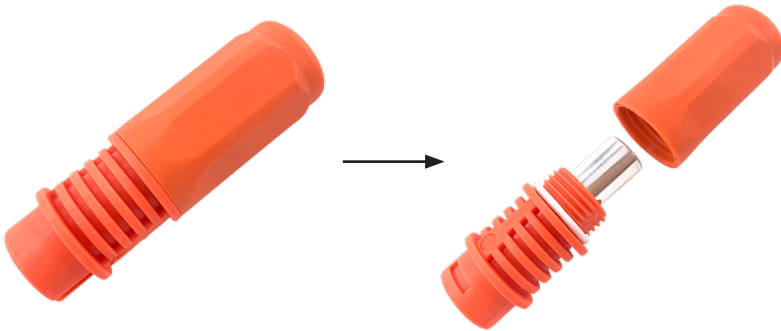
# Part 1: Package Contents



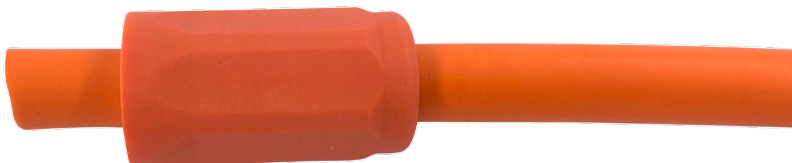
1. Connector Body  
1-1: O-Ring (not included when there is no sealing requirement)
2. Grommet (not included when there is no sealing requirement)
3. Backshell

# Part 2: Plug Assembly

1. Unscrew the backshell (grommet should remain within the backshell)



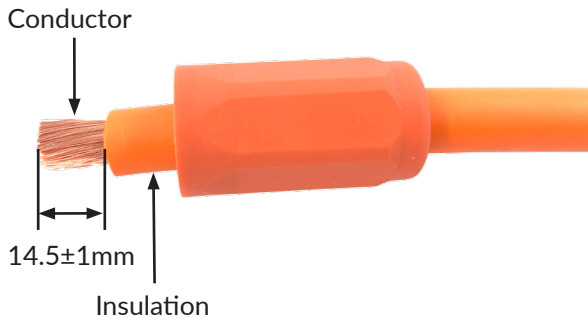
2. Slide the grommet/backshell onto the cable as shown



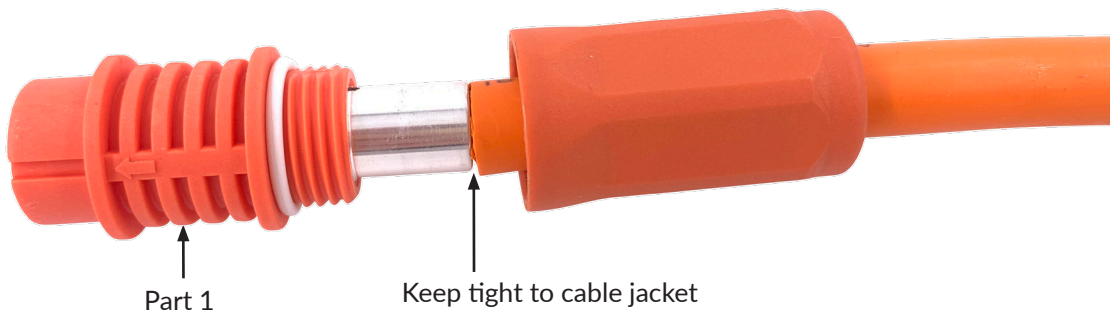


3. Wire cutting and stripping (applies to 16mm<sup>2</sup> & 25mm<sup>2</sup> cables).

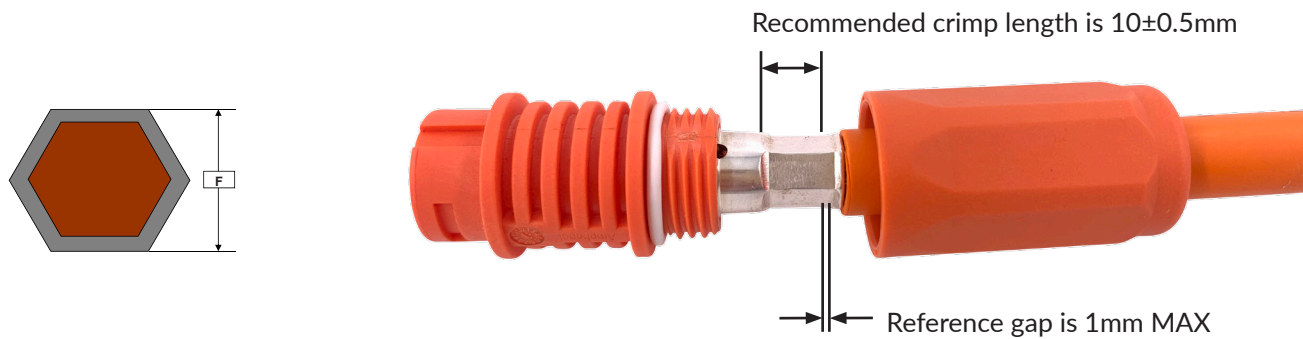
Strip conductor: 18±1mm



4. Install the cable conductor into the connector body lug



5. Crimp wire well as shown below



Cable Size	Cable Range	Recommended crimp dist across Flats F	Cable Pullout Force	Applicable Current
25 mm <sup>2</sup>	10.20±0.20 mm	7.2 ± 0.1mm	1900N Min.	120A Max.
35 mm <sup>2</sup>	11.50±0.30 mm	9.0 ± 0.1mm	2300N Min.	150A Max.
50 mm <sup>2</sup>	13.60±0.30 mm	10.2 ± 0.1mm	2800N Min.	200A Max.

Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to cable specification and crimp tool. Test results including temperature rise, metallographic analysis, and pullout force.

Recommended crimping tool: Manual hydraulic crimper

Die: 25mm<sup>2</sup> die for 25mm<sup>2</sup> cable

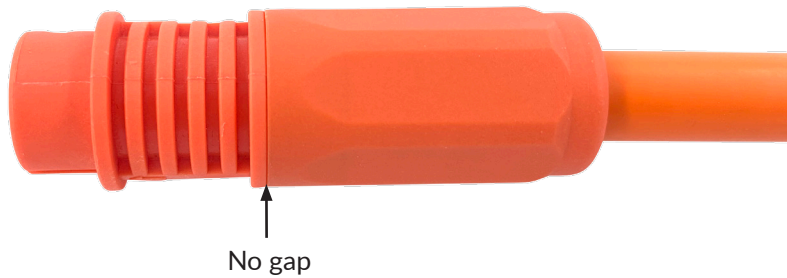
35mm<sup>2</sup> die for 35mm<sup>2</sup> cable

50mm<sup>2</sup> die for 50mm<sup>2</sup> cable



6. Assemble the grommet and backshell. Tighten backshell to the indicated location shown in the below picture by hand or tool. The recommended torque is shown in the table below.

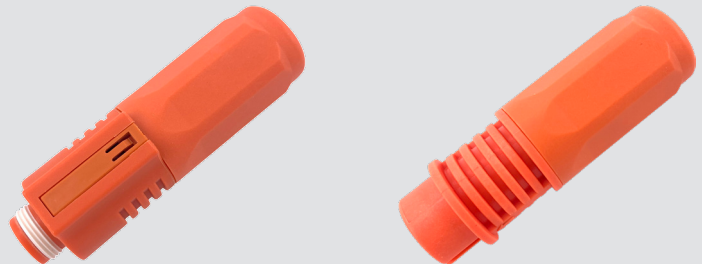
Recommended torque of rear shell		
Cable Size	Cable O.D.	Torque
25mm <sup>2</sup>	10.2±0.2 mm	1.0~1.2 N.m
35mm <sup>2</sup>	11.5±0.3 mm	1.0~1.2 N.m
50mm <sup>2</sup>	13.6±0.3 mm	1.2~1.5 N.m



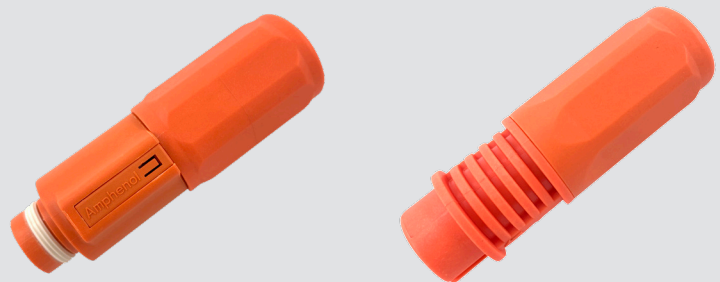
CABLE ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 5.7 & 8.0mm 1000V  
Inline Receptacle and Straight Plug  
Mating and Unmating Guide**

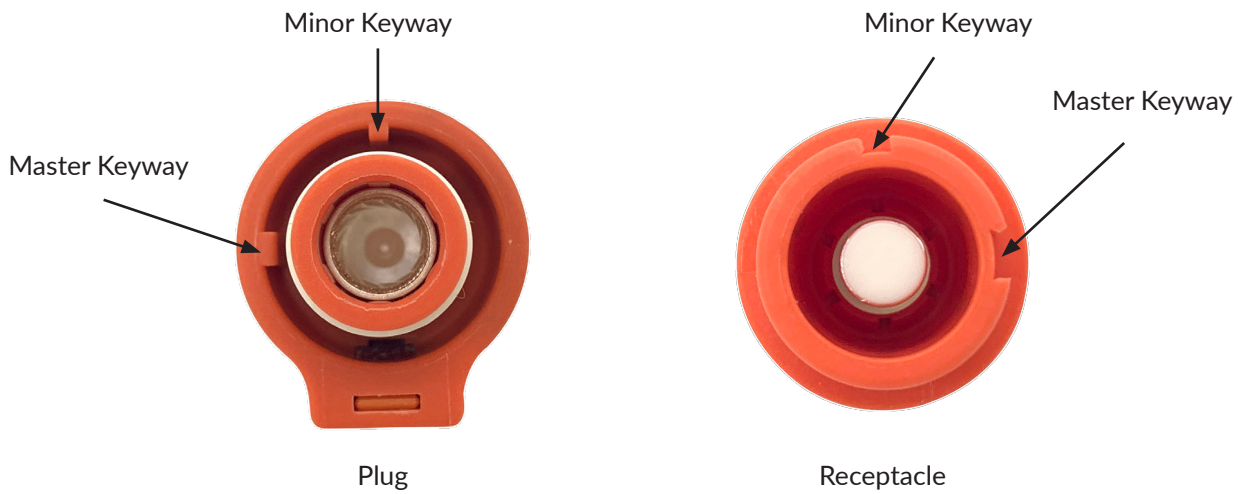
**5.7mm SurLok Plus Connector**



**8.0mm SurLok Plus Connector**

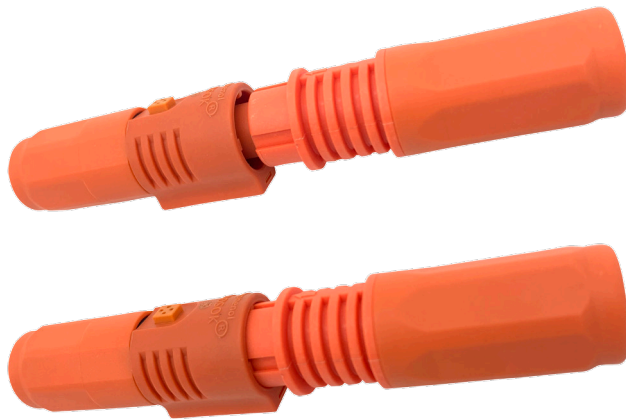


# Part 1: Keyway Description



# Part 2: Mating Operation

1. Initial mating: Align the master keyway of the receptacle and plug (skip this step if there is no keyway/key option), and push the plug vertically into the receptacle as shown in the diagram.



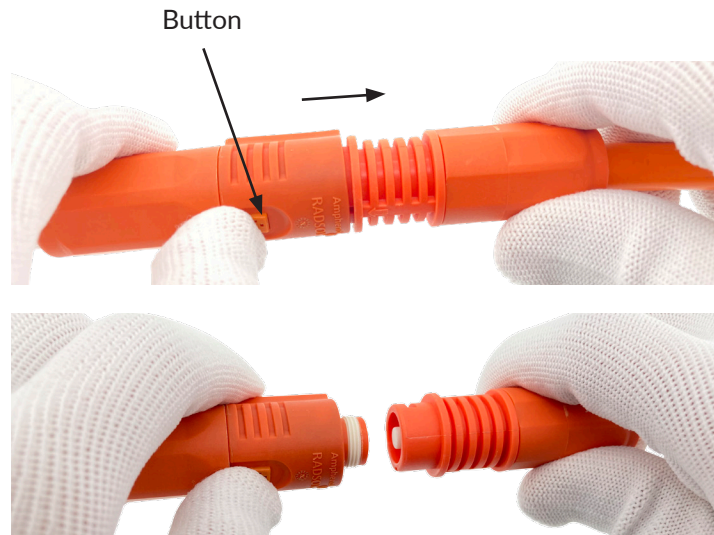
2. Continue mating plug into receptacle, until you hear an audible "click" to indicate that the plug and receptacle are fully mated.



Note: Attempt to unmate the plug and receptacle (without pressing lock button) by hand to confirm they are properly mated.

## Part 3: Unmating Operation

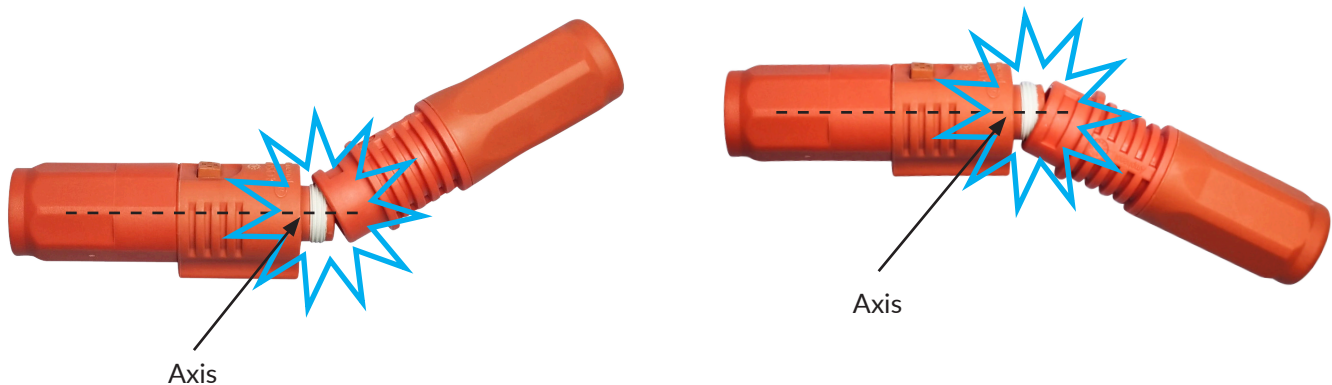
1. After shutting down the electrical current, press the button and pull the plug horizontally from the receptacle, in the direction shown below.



Note: For end use, the separation active space required is 129mm minimum, this does not include the active space for hand or tool operation.



2. Do not deviate from the axis direction of the receptacle until unmating is complete in order to eliminate potential damage to the connectors.



**Note:** This product is not suitable for live mating and unmating. At the same time, it is recommended to add a protection mechanism to the equipment to prevent accidental unplugging.

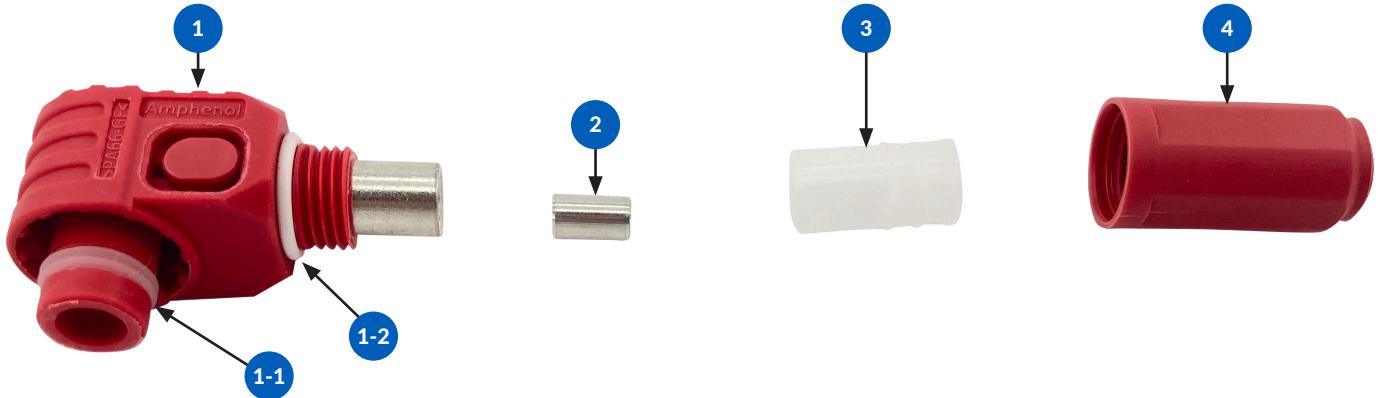
CABLE ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 3.6mm 1500V  
Right Angle Plug**

**Part Number:  
SLPHPM( )B( )( )**



# Part 1: Package Contents



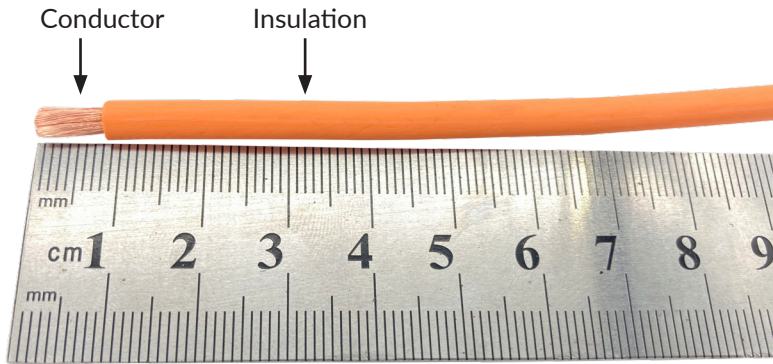
1. Connector Body  
1-1: Barrel sealing (not included when there is no sealing requirement)  
1-2: O-Ring (not included when there is no sealing requirement)
2. 6mm<sup>2</sup> Barrel (only provided when the 6mm<sup>2</sup> option is selected)
3. Grommet (not included with non-sealed option)
4. Backshell

# Part 2: Plug Assembly

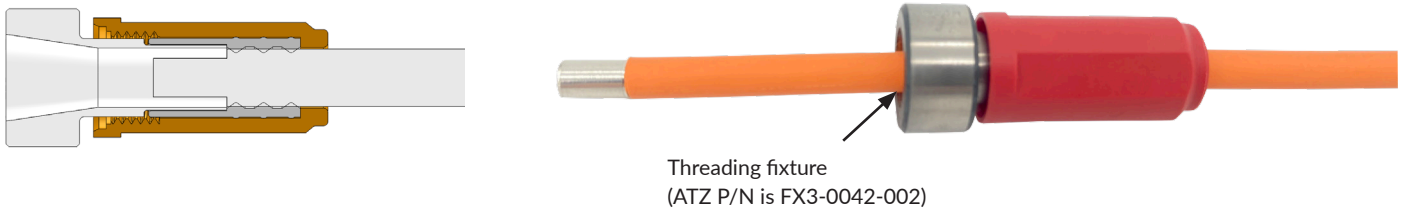
1. Screw out the rear backshell, then remove the grommet and barrel



2. Cut and strip wire, per illustration below (applies to 10mm<sup>2</sup> & 6mm<sup>2</sup> cables)  
Strip conductor: 7±0.5mm



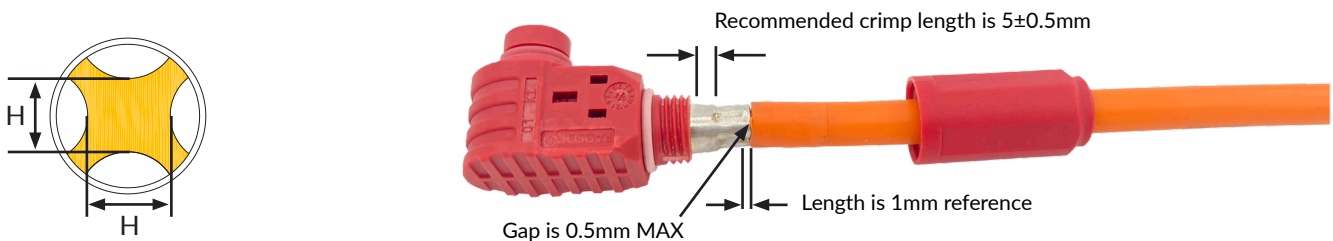
3. As shown below, slide the barrel onto the wire (for the 10mm<sup>2</sup> option, skip this step). Then install the barrel into the backshell and use the threading fixture to install the grommet into the backshell and thread the wire.



4. Install the wire into the wire well of the connector body



5. Crimp the wire well as shown



Cable Size	Cable Range	Recommended Crimp Height H	Cable Pullout Force	Apply Current
10mm <sup>2</sup>	6.25±0.2 mm	3.6±0.1 mm	450N Min.	70A Max.
6mm <sup>2</sup>	4.8±0.2 mm		320N Min.	50A Max.

Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to cable specification and crimp tool. Test results including temperature rise, metallographic analysis, and pullout force.

Recommended crimping tool: Hydraulic press



6. Assemble grommet and backshell



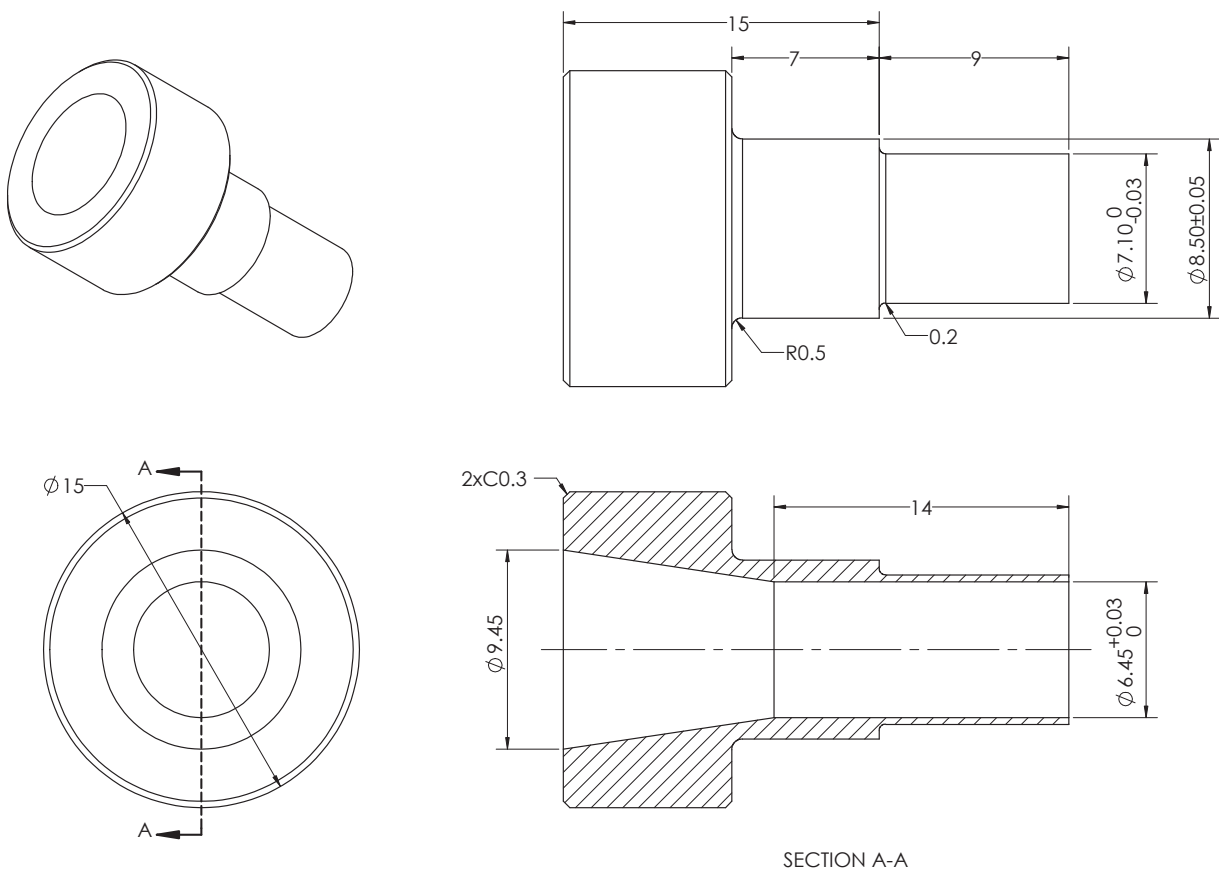
Tighten backshell to the indicated location shown as picture above by hand or tool

The recommended torque as below:

10mm<sup>2</sup>: 0.5~0.6N.m

6mm<sup>2</sup>: 0.5~0.6N.m

Attachment: Specifications of threading fixture

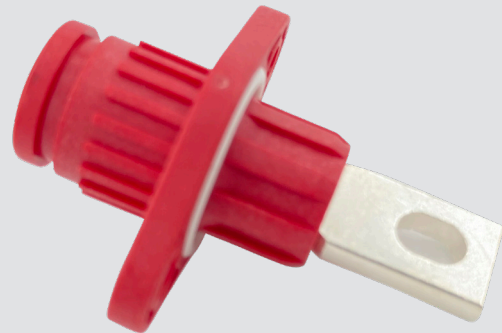


Material spec: SKD11

CABLE ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 3.6mm 1500V**  
**Receptacle Busbar Type**

**Part Number:**  
**SLPHIRMBP( )( )**



# Part 1: Package Contents



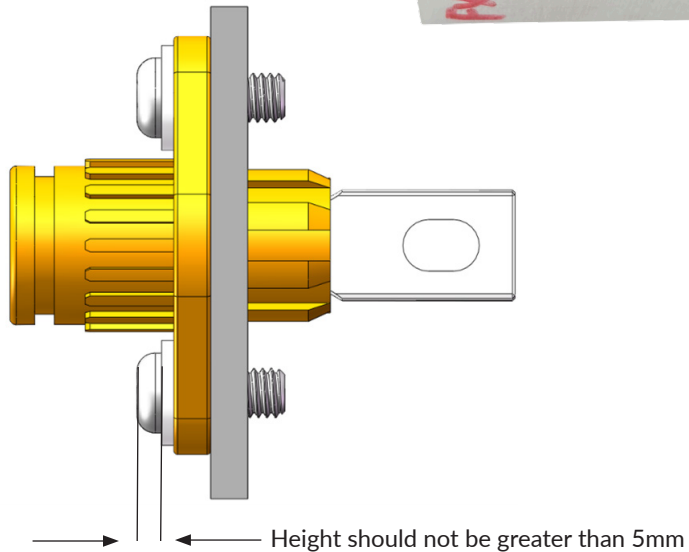
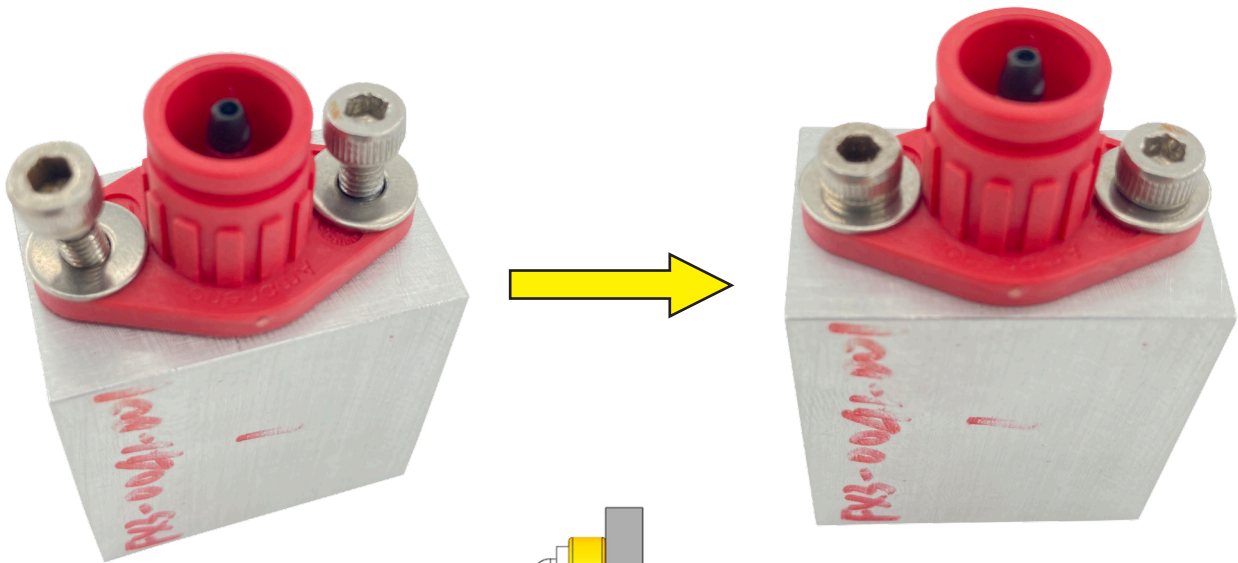
Receptacle connector for busbar type

Note: There will be no gasket provided when there is no sealing requirement

# Part 2: Receptacle Assembly

1. Tighten housing onto the panel with M5 screws (recommended torque: 0.4-0.7N.m)

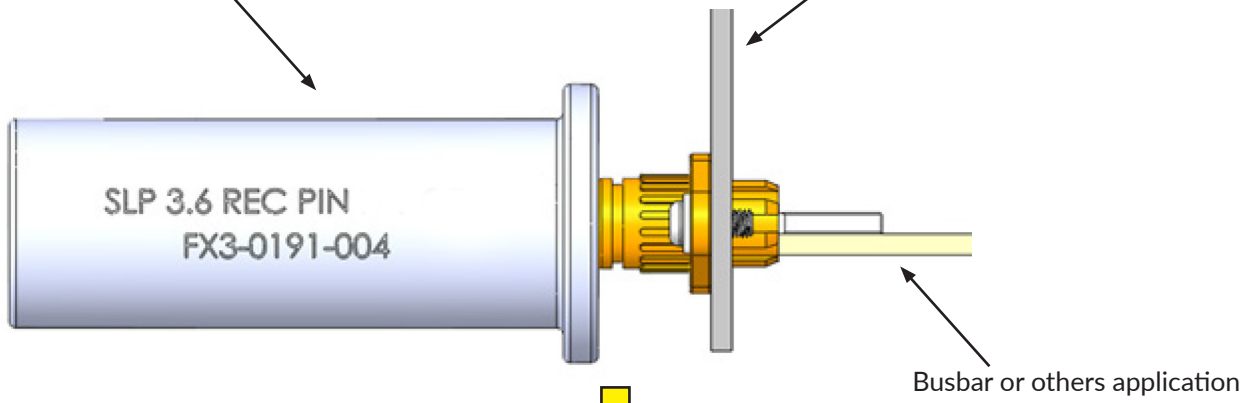
- (1) Recommended M4 bolts refer to GB/T70.2-2015
- (2) Recommended M4 Spring washer refer to BS 4464:1969(2004)



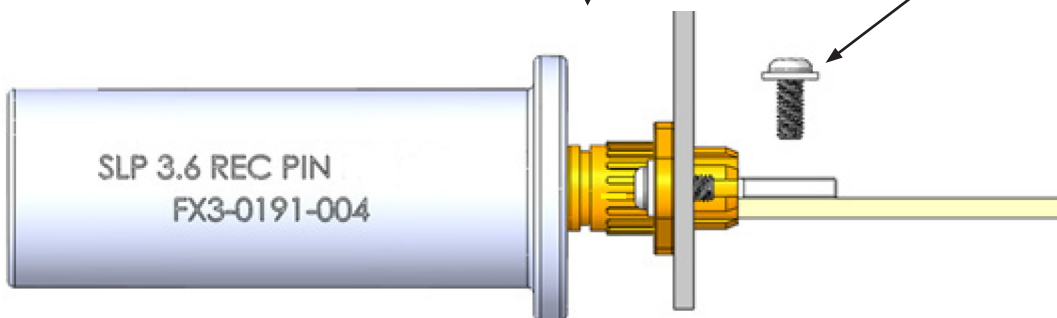
2. Connect receptacle terminal with customer's busbar

Terminal Fixture  
(Amphenol PN: FX3-0191-004)

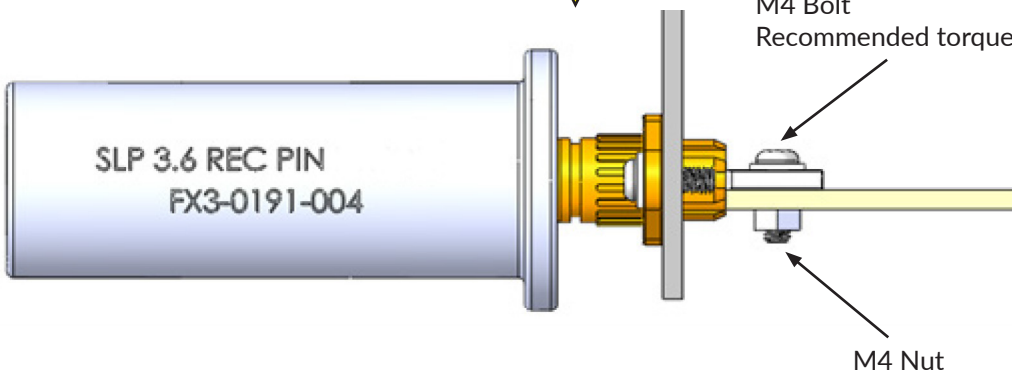
Panel



M4 Bolt



M4 Bolt  
Recommended torque: 1.2-1.5 N.m



- 1): Pass the receptable tail through the hole of mounting panel
- 2): Insert the terminal fixture (Amphenol PN: FX3-0191-004) into the receptacle
- 3): Pass bolt through washer and copper busbar and nut in proper order
- 4): Tighten screws by tool, then remove the terminal fixture

Notes:

- The busbar (or others application) needs to be fixed during installation. The customer shall verify the recommended torque based on your application and modify it if necessary.
- The function of the terminal fixture is to reduce the deflection of the terminal installation process, and the customer can determine whether it is needed according to the actual process.
- During the process of using the terminal fixture, the handle should be tightly held to prevent it from swinging.

Revision History

Revision	Date	Notes
A	July 29, 2020	First release
B	July 27, 2023	Add terminal fixture

CABLE ASSEMBLY WORK INSTRUCTION

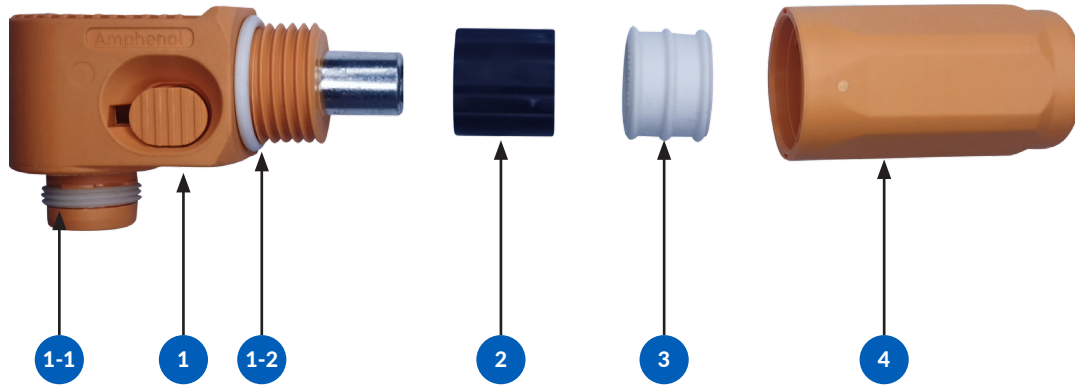
**SurLok Plus™ 5.7mm 1500V**

**Right Angle Plug**

**Part Number:  
SLPHPA( )B( )( )**



# Part 1: Package Contents



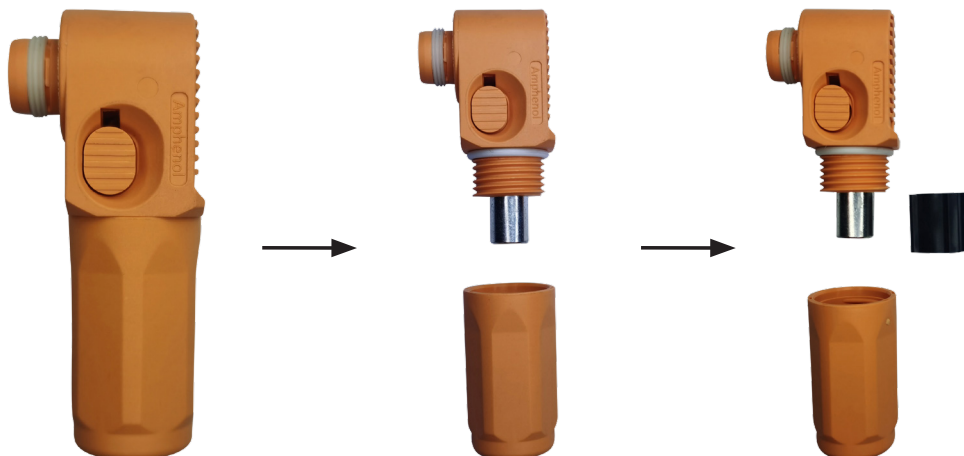
1. Connector Body  
1-1: Barrel sealing (not included when there is no sealing requirement)  
1-2: O-Ring (not included when there is no sealing requirement)
2. Bracket (not included when there is no sealing requirement)
3. Grommet (not included when there is no sealing requirement)
4. Back Shell

# Part 2: Plug Assembly

## Step 1: Un-assemble rear attachments

Screw out the rear shell then take out the bracket.

Notes: The grommet should be kept inside of rear shell.



### Step 2: Wire stripping

Strip the insulator of  $16.0 \pm 0.5$ mm.

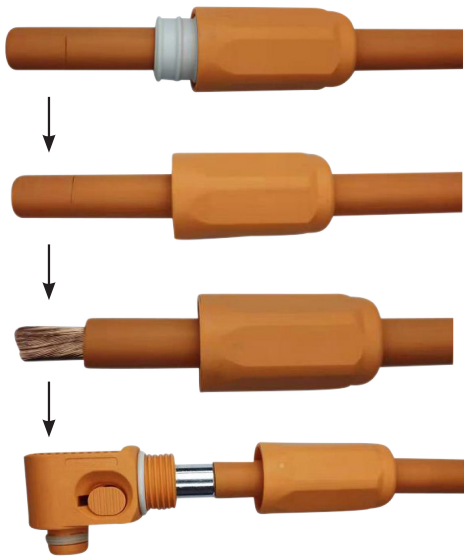
Notes: The cut insulator should kept cover on the conductor.



### Step 3: Preloaded rear attachments

Wire pass through rear shell and grommet, then take off the cut insulator.

Finally put the conductors of cable into the lug of connector body.



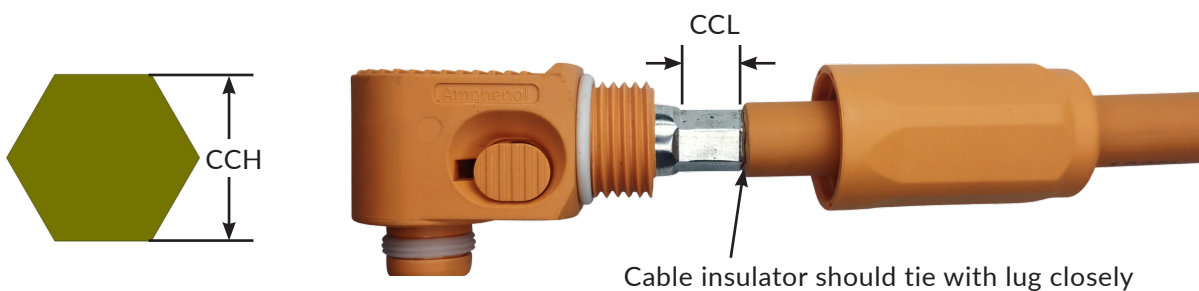
### Step 4: Crimping the lug

Crimp lug together with cable conductor according to below table.

Recommended crimping parameter				
Cable size	Cable O.D.	CCH	CCL	Pullout force
16mm <sup>2</sup>	8.1±0.2mm	7.0±0.1mm	8.0±0.2mm	1500N Min.
25mm <sup>2</sup>	10.2±0.2mm	7.45±0.1mm	8.0±0.2mm	1900N Min.

### Notes:

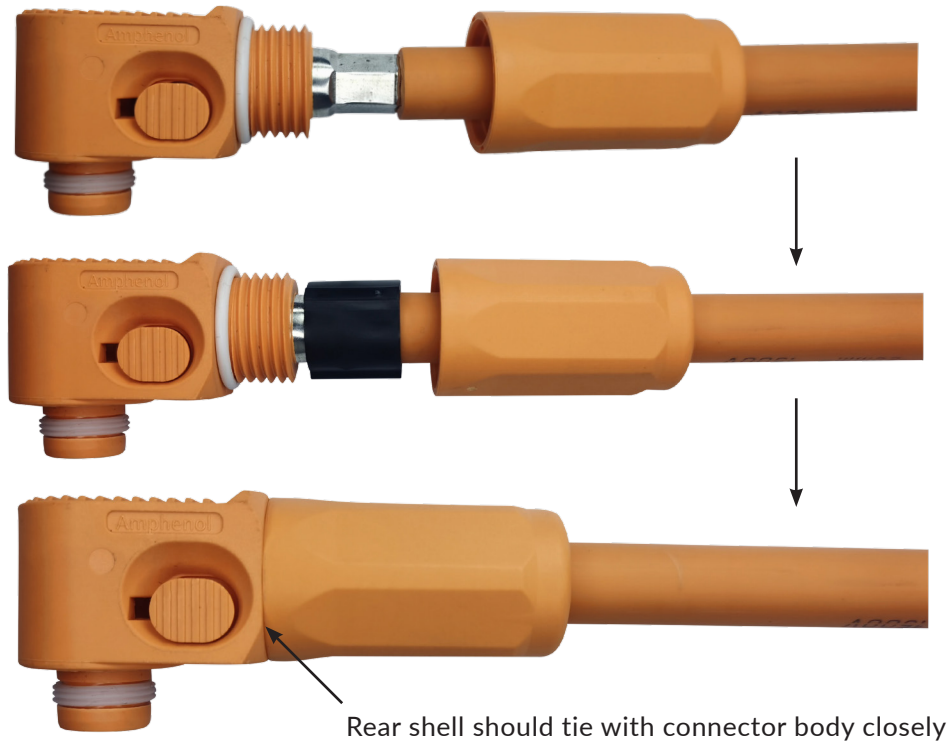
The recommended crimp sizes are only for reference. The customer shall adjust them according to cable specification and crimp tool and test results including temperature rise and metallographic analysis and pullout force, etc.





**Step 5: Assemble rear attachments**

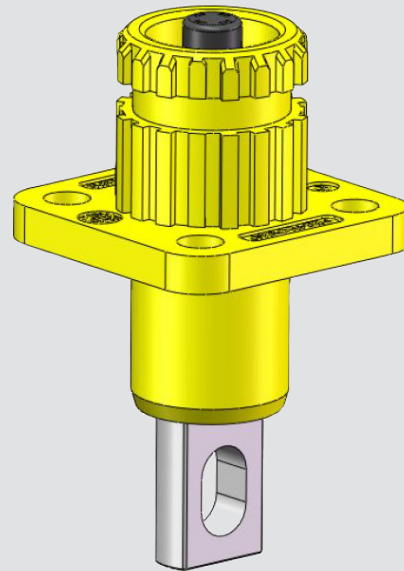
Put the bracket onto the lug of connector body, then tighten rear shell to the indicated location shown as picture by hand or wrench (recommended torque is  $0.9\pm 0.1\text{N.m}$ ).



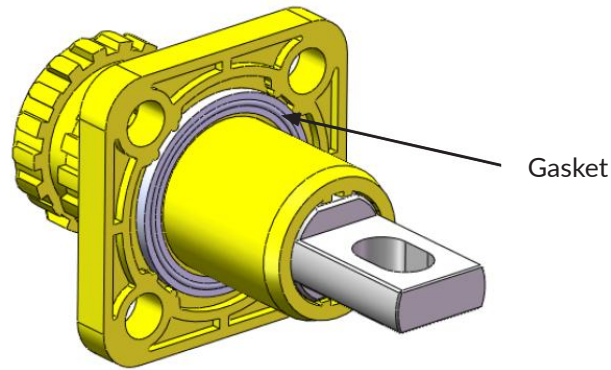
ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 5.7mm 1500V**  
**Receptacle Busbar Termination**

**Part Number:**  
**SLPHIRABP( )( )**



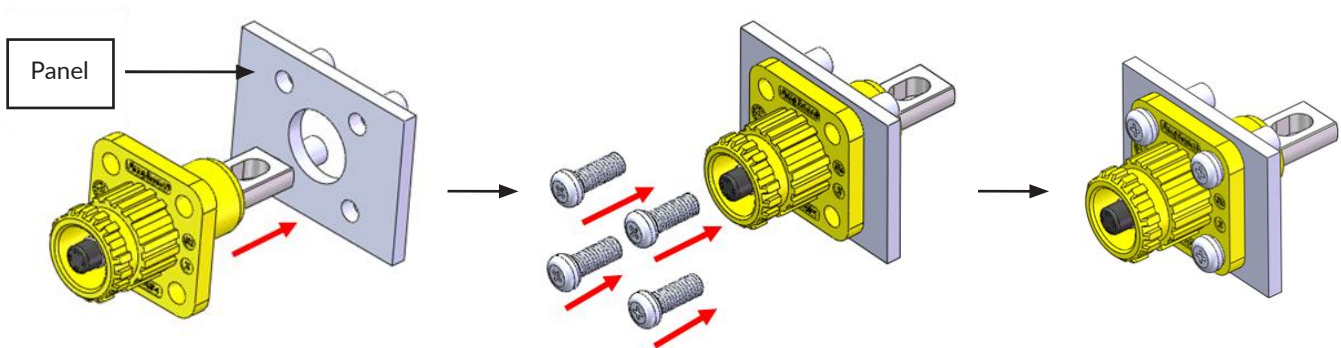
# Part 1: Package Contents



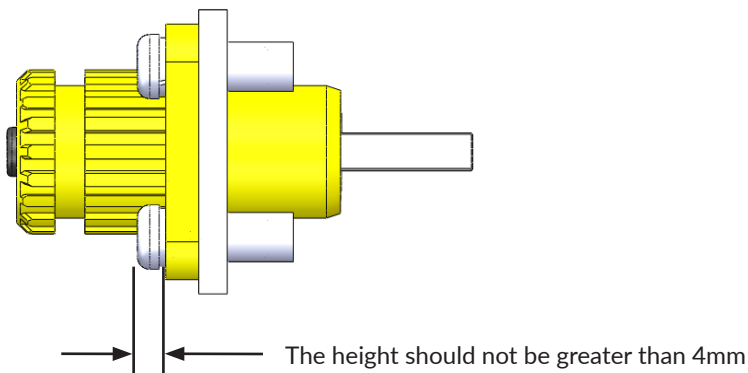
1. Receptacle Shell  
1-1: Gasket (Not included when no sealing requirement)

# Part 2: Receptacle Assembly

1. Tighten housing onto the panel with M4 screws (recommended torque is  $0.8 \pm 0.1 \text{N.m}$ )

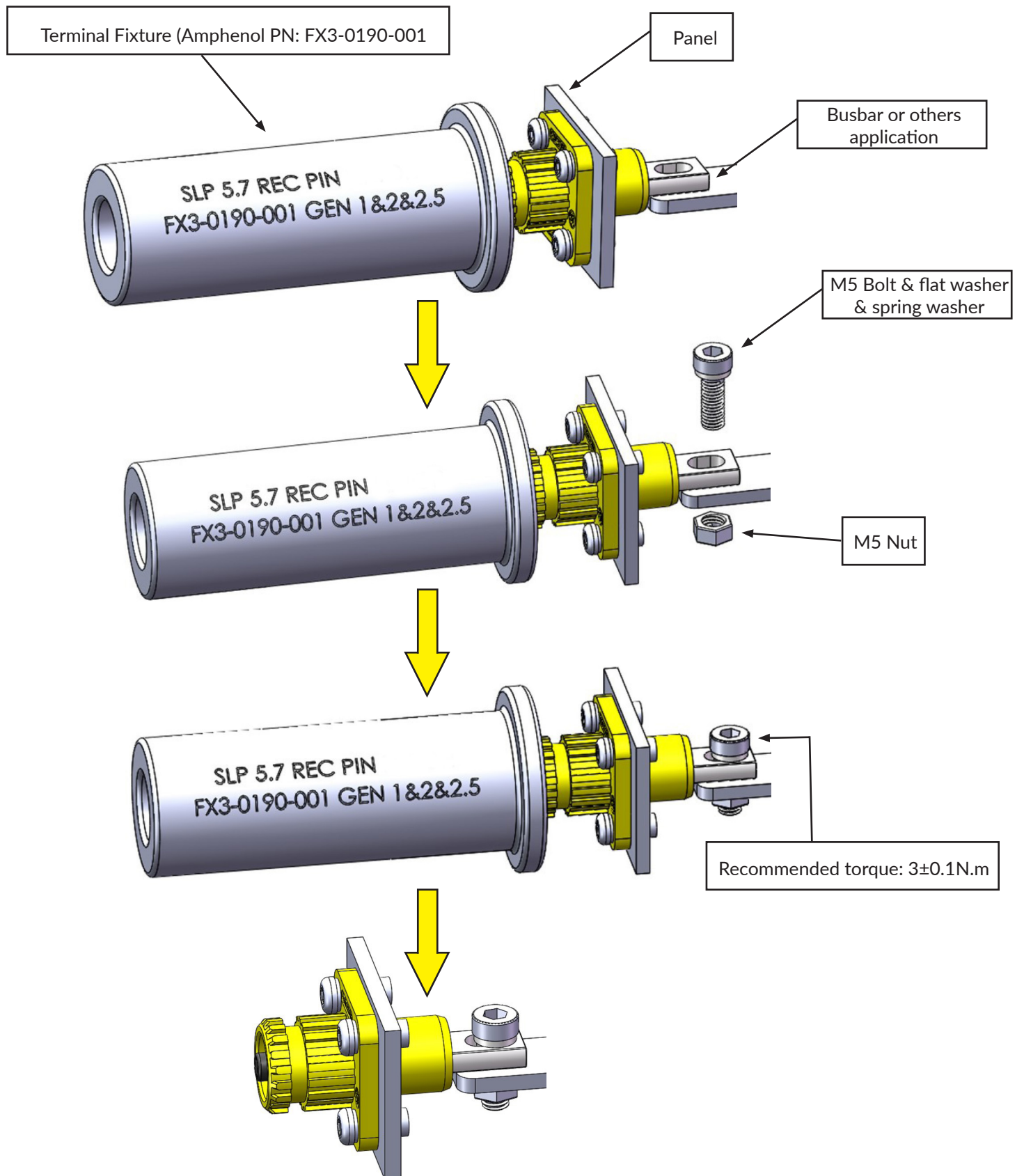


Recommended screw is GB 9074.3 M4.



Note: The customer shall verify the recommended torque based on your application and modify it if necessary.

2. Connect receptacle terminal with customer's busbar copper



- 1): Pass receptacle tail through the hole of the mounting panel
- 2): Insert the terminal fixture (Amphenol PN: FX3-0190-001) into the receptacle
- 3): Pass studs through washer and copper busbar and nut in proper order
- 4): Tighten screws by tool, then remove the terminal adjusting fixture

Notes:

- The busbar (or others application) needs to be fixed during installation. During the process of using the terminal fixture, the handle should be tightly held to prevent it from swinging. The customer shall verify the recommended torque base on your application and modify it if necessary. The function of the terminal fixture is to reduce the deflection of the terminal installation process, and the customer can determine whether it is needed according to the actual process.

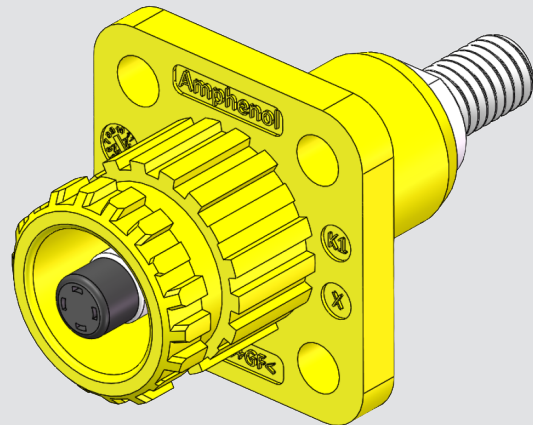
#### Revision History

Revision	Date	Notes
A	Dec. 18, 2021	First release
B	April 15, 2022	Update Recommended Torque
C	July 21, 2023	Update package contents

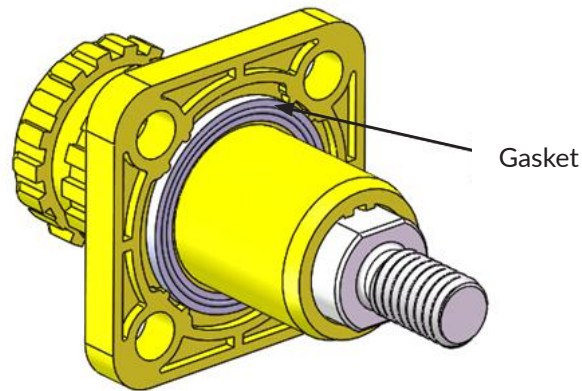
ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 5.7mm 1500V**  
**Receptacle Threaded Termination**

**Part Number:**  
**SLPHIRATP( )( )**



# Part 1: Package Contents

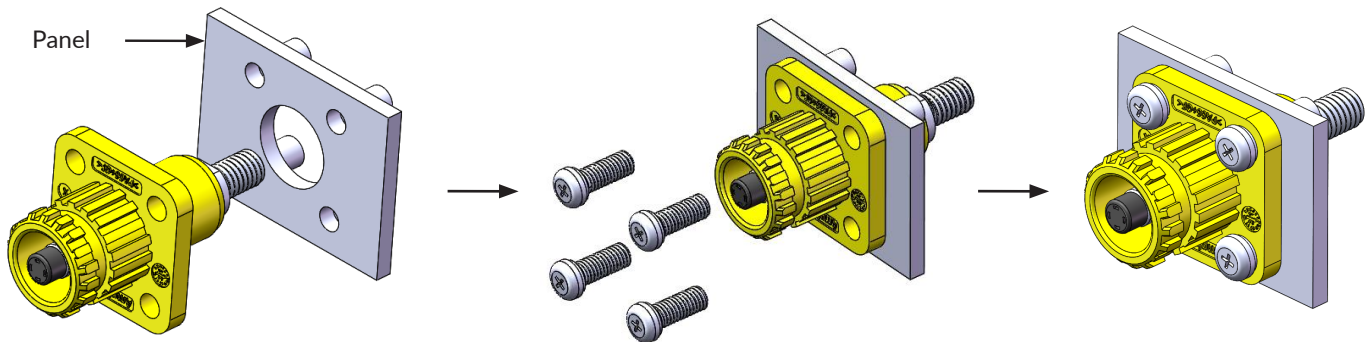


## 1. Receptacle Shell

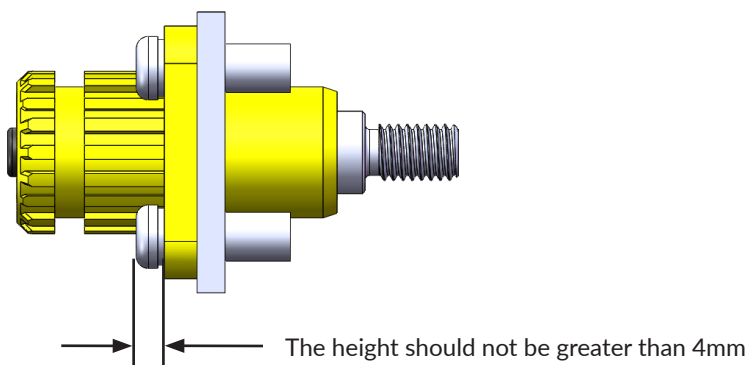
1-1: Gasket (Not included when no sealing requirement)

# Part 2: Receptacle Assembly

## 1. Tighten housing onto the panel with M4 screws (recommended torque is $0.8 \pm 0.1 \text{ N.m}$ )

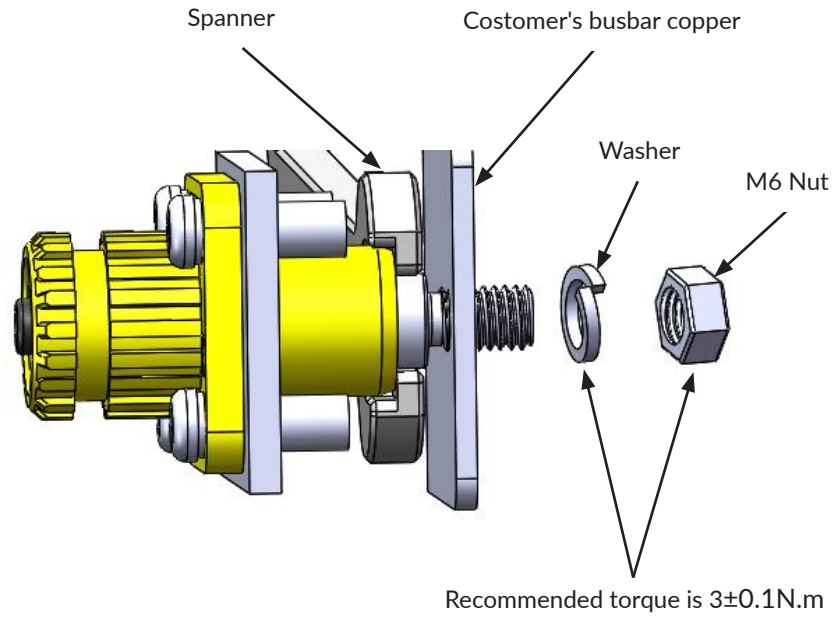


Recommended screw is GB 9074.3 M4.



Note: The customer shall verify the recommended torque based on your application and modify it if necessary.

2. Connect receptacle terminal with customer's busbar copper.



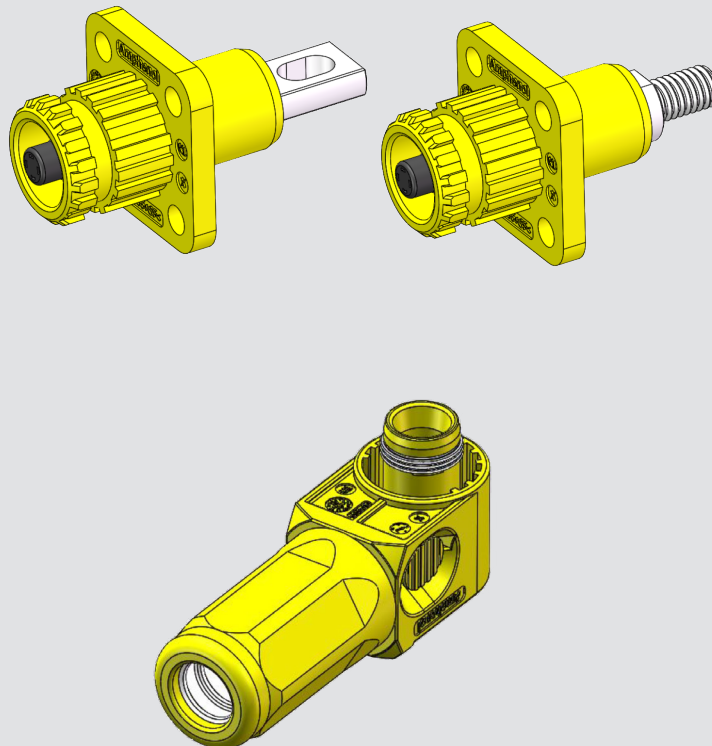
Notes: The customer shall verify the recommended torque based on your application and modify it if necessary.

The customer shall confirm whether the electrical clearance between the panel and the copper bar meets the requirements according to the actual application.

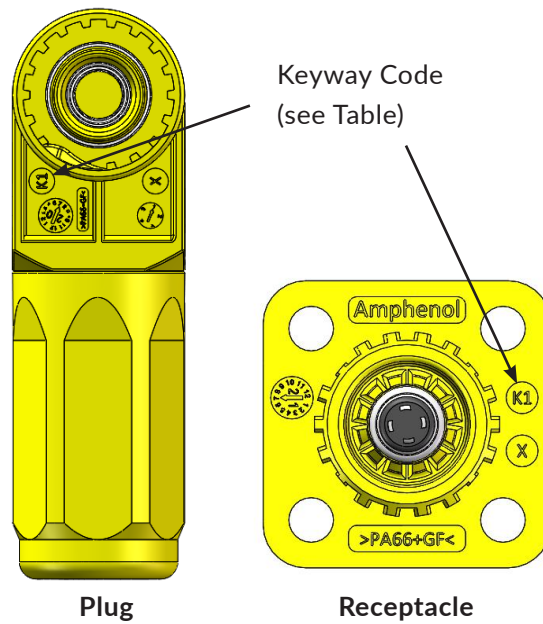


ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 5.7mm 1500V**  
**Right Angle Mating and Unmating Guide**



# Part 1: Keyway Description



Keyway Code Table	
Y°	Keyway Code
20°	K1
30°	K2

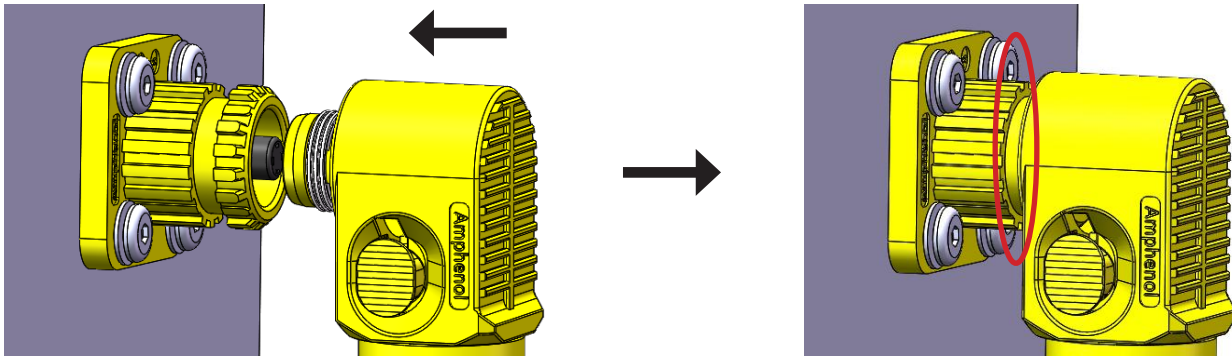
## Notes:

This product is not suitable for live plugging and unplugging.

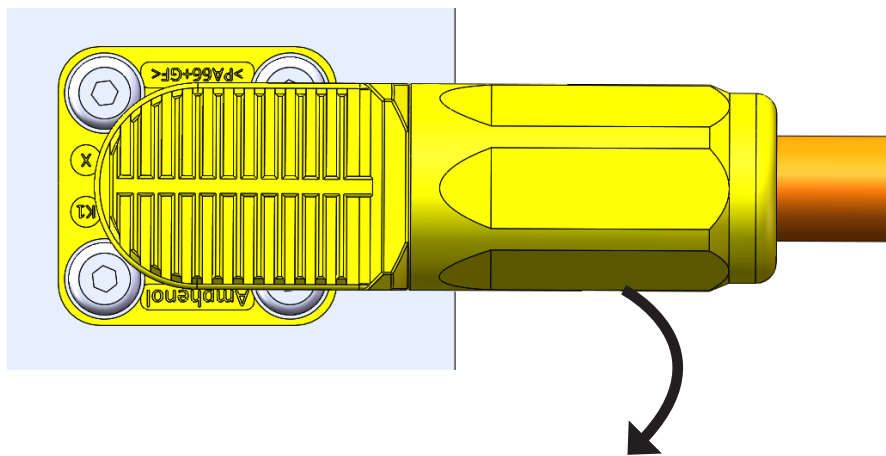
In order to prevent the plug from being pulled out by mistake, it is recommended to add a protection mechanism on the device

## Part 2: Mating Operation

**Step 1:** Preliminary mating: Insert the plug and receptacle into the following positions shown in the figure.



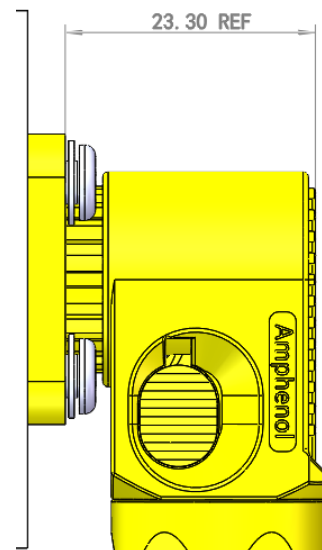
**Step 2:** Rotate the Plug and adjust the outgoing direction of the cable to the desired position.



**Step 3:** Align the key with the keyway and push the plug vertically into the receptacle, until hear a "click" to indicate that plug and receptacle mated well.

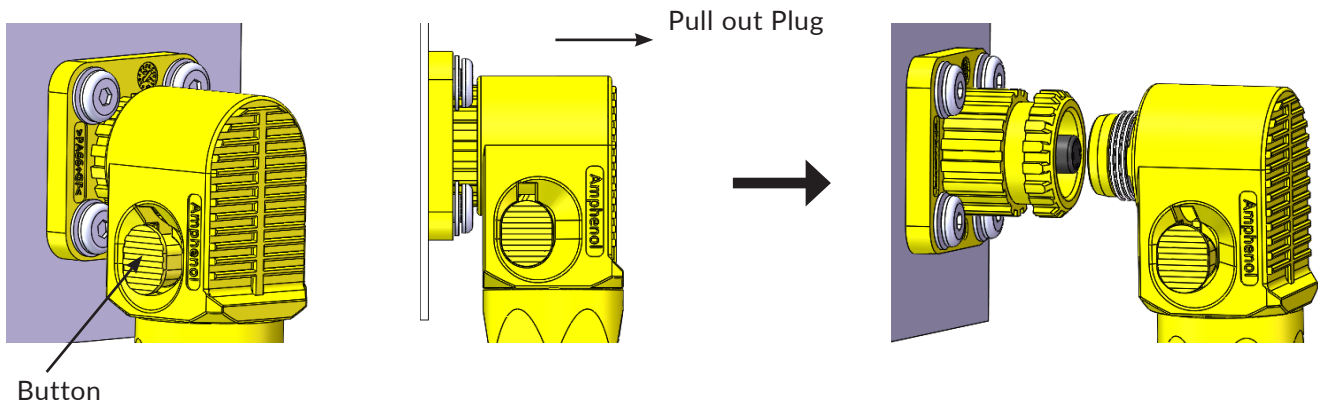
Note:

Pull the plug body slightly by hand to reconfirm if they mated well

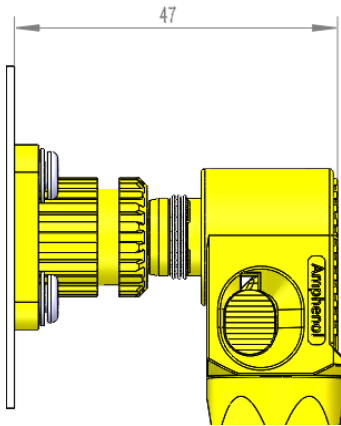


# Part 3: Unmating Operation

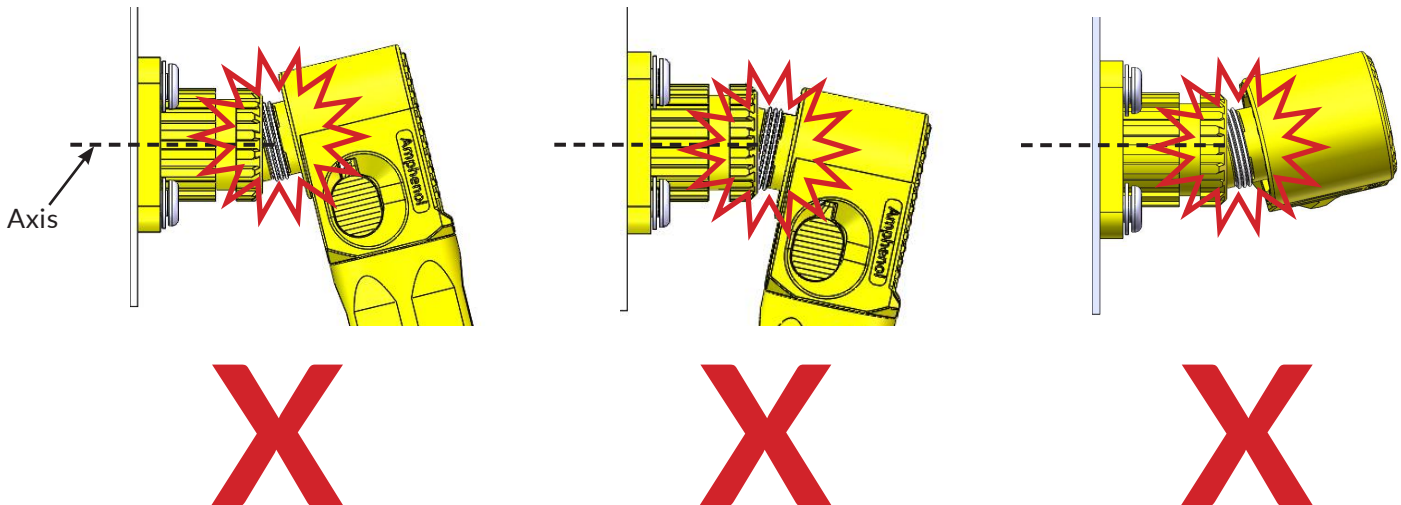
After turn off the power, press the button and then pull out the plug horizontally in the direction shown below.



**Step 1:** For end use, the separation active space requires is 67.5mm minimum.



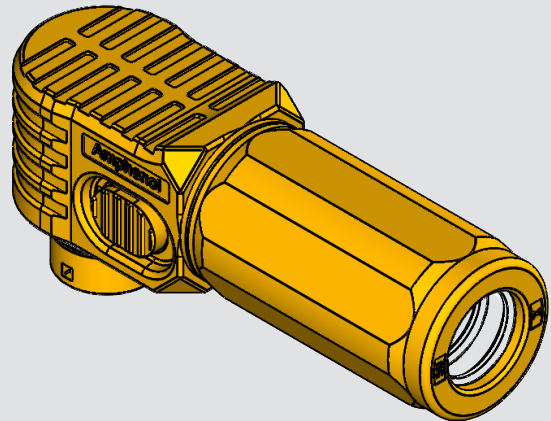
**Step 2:** Do not deviate from the axis direction of the receptacle until it was separation complete, or it has a risk to damage the connector.



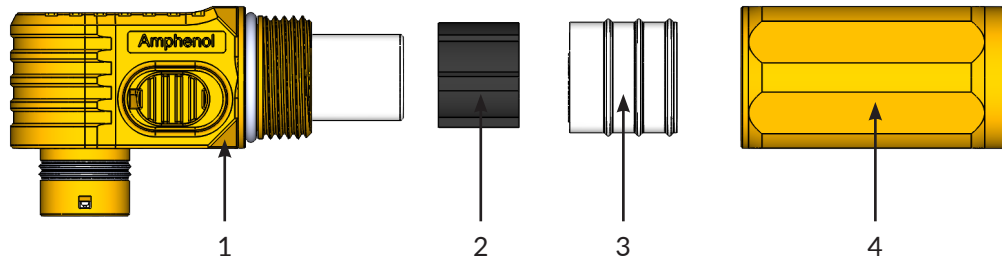
ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 8.0mm 1500V**  
**Right Angle Plug**

**Part Number:**  
**SLPHPB( )B( )( )**



# Part 1: Plug Components



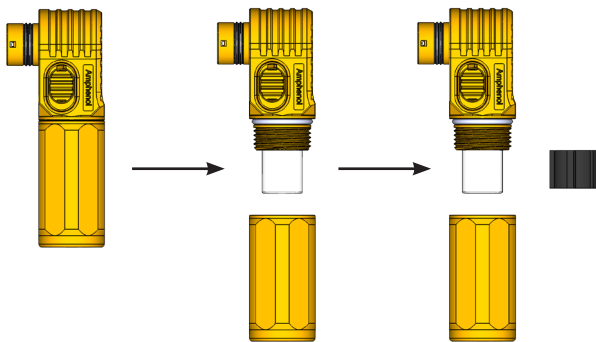
Item	Components Description	Quantity
1	Connector Body	1 set
2	Bracket	1 pcs
3	Grommet	1 pcs
4	Rear Shell	1 pcs

# Part 1: Plug Cable Assembly

## Step 1: Un-assemble rear attachments

Screw out the rear shell then take out the bracket.

Notes: The grommet should be kept inside of rear shell.



## Step 2: Wire stripping

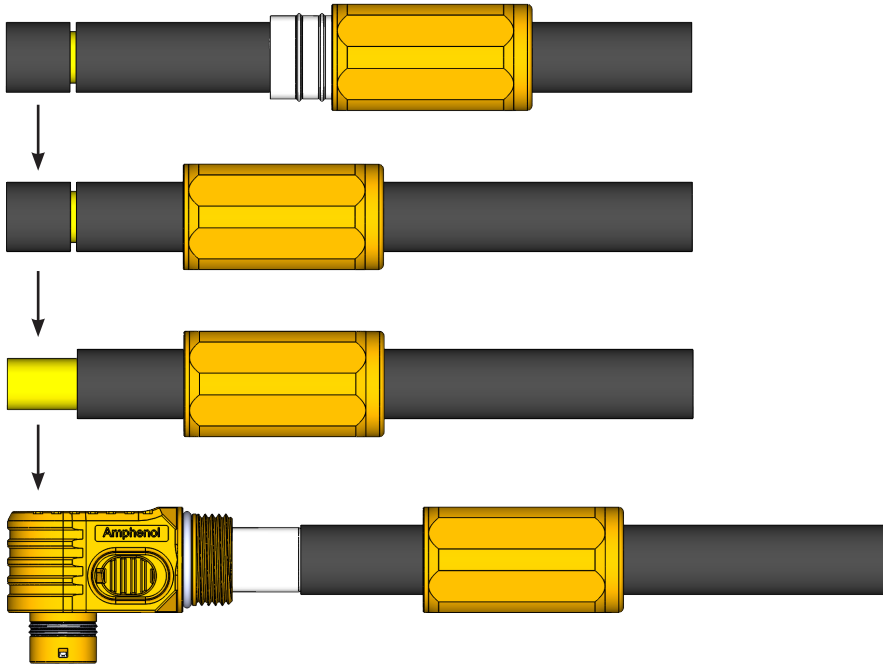
Strip the insulator of  $14.0 \pm 0.5$ mm.

Notes: The cut insulator should be kept cover on the conductor.



### Step 3: Preloaded rear attachments

Wire pass through rear shell and grommet, then take off the cut insulator. Finally put the conductors of cable into the lug of connector body.



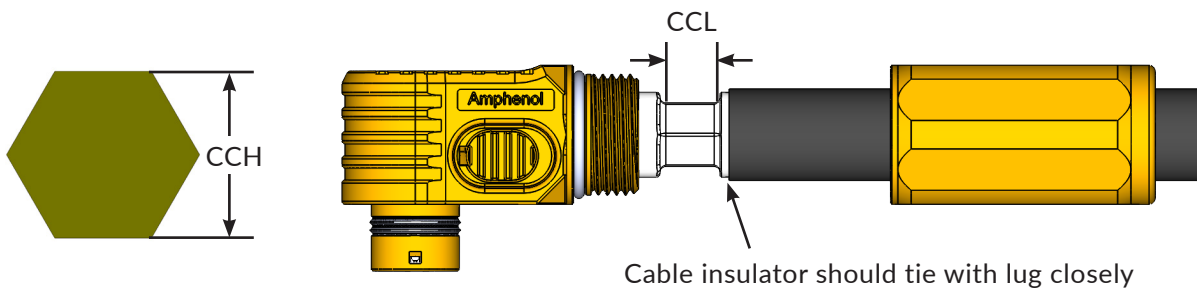
### Step 4: Crimping the lug

Crimp lug together with cable conductor according to below table.

Recommended crimping parameter				
Cable size	Cable O.D.	CCH	CCL	Pullout force
35mm <sup>2</sup>	11.5±0.3mm	9.0±0.1mm	10.0±0.3mm	1900N Min.
50mm <sup>2</sup>	13.6±0.3mm	10.5±0.1mm	10.0±0.3mm	2700N Min.

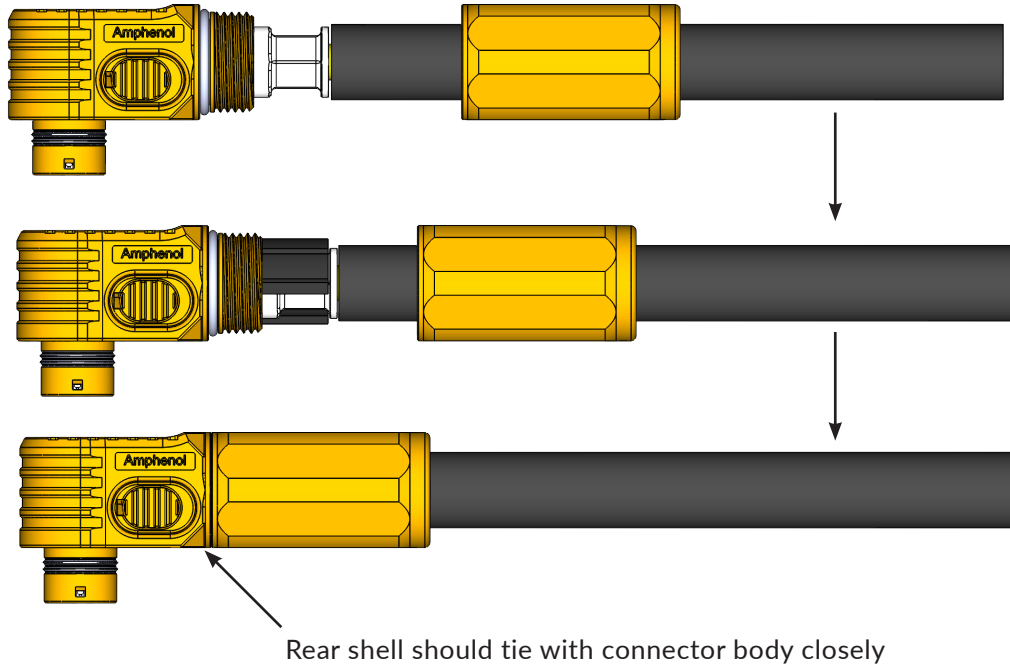
### Notes:

The recommended crimp sizes are only for reference. The customer shall adjust them according to cable specification and crimp tool and test results including temperature rise and metallographic analysis and pullout force, etc.



**Step 5: Assemble rear attachments**

Put the bracket onto the lug of connector body, then tighten rear shell to the indicated location shown as picture by hand or wrench (recommended torque is  $1.2 \pm 0.1 \text{N.m}$ ).

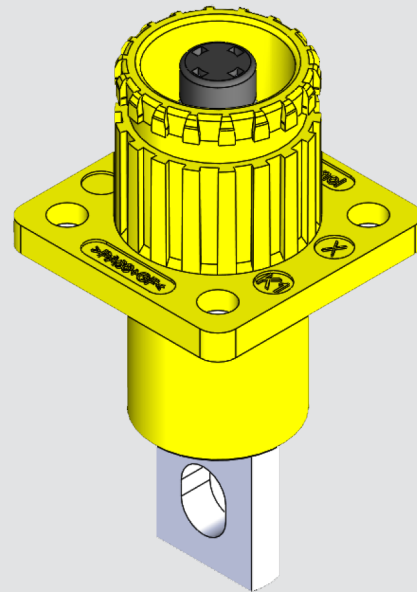




ASSEMBLY WORK INSTRUCTION

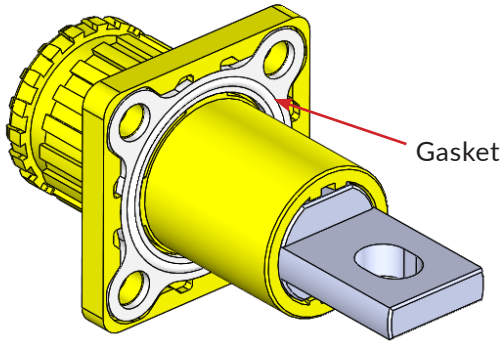
**SurLok Plus™ 8.0mm 1500V**  
**Receptacle Busbar Termination**

**Part Number:**  
**SLPHIRBBP( )( )**



# Part 1: Package Contents

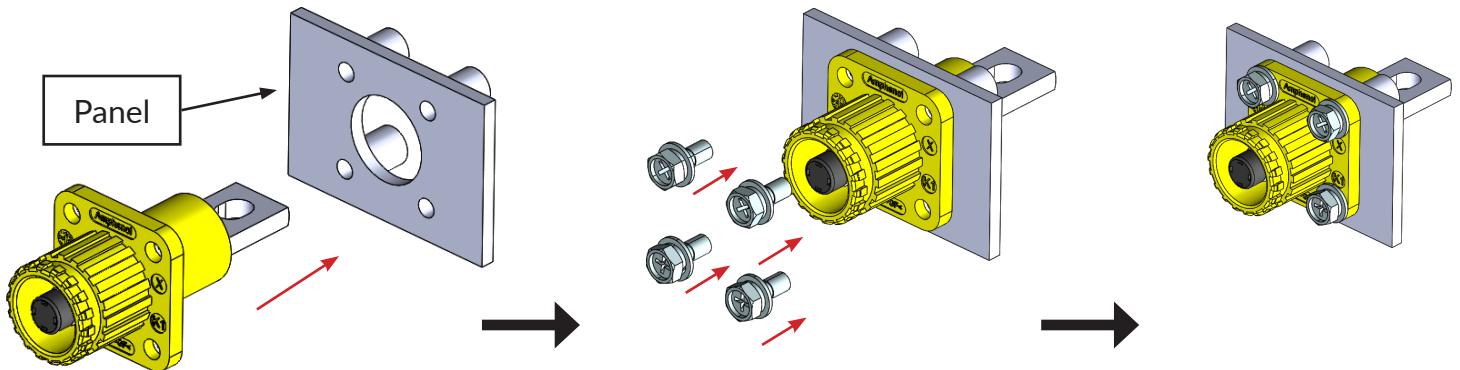
## 1: Receptacle shell



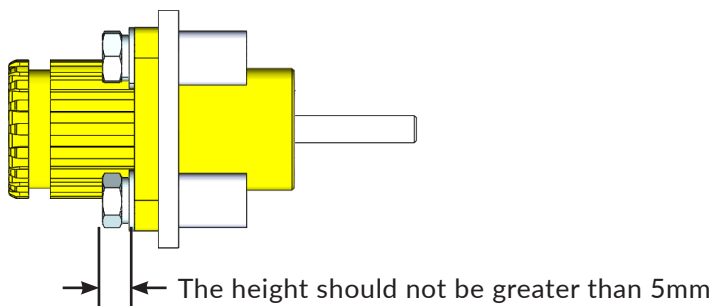
1-1: Gasket (Not included when no sealing requirement)

# Part 2: Receptacle Assembly

Step 1: Tighten housing onto the panel with M4 screws (recommended torque as  $0.8 \pm 0.1 \text{N.m}$ )



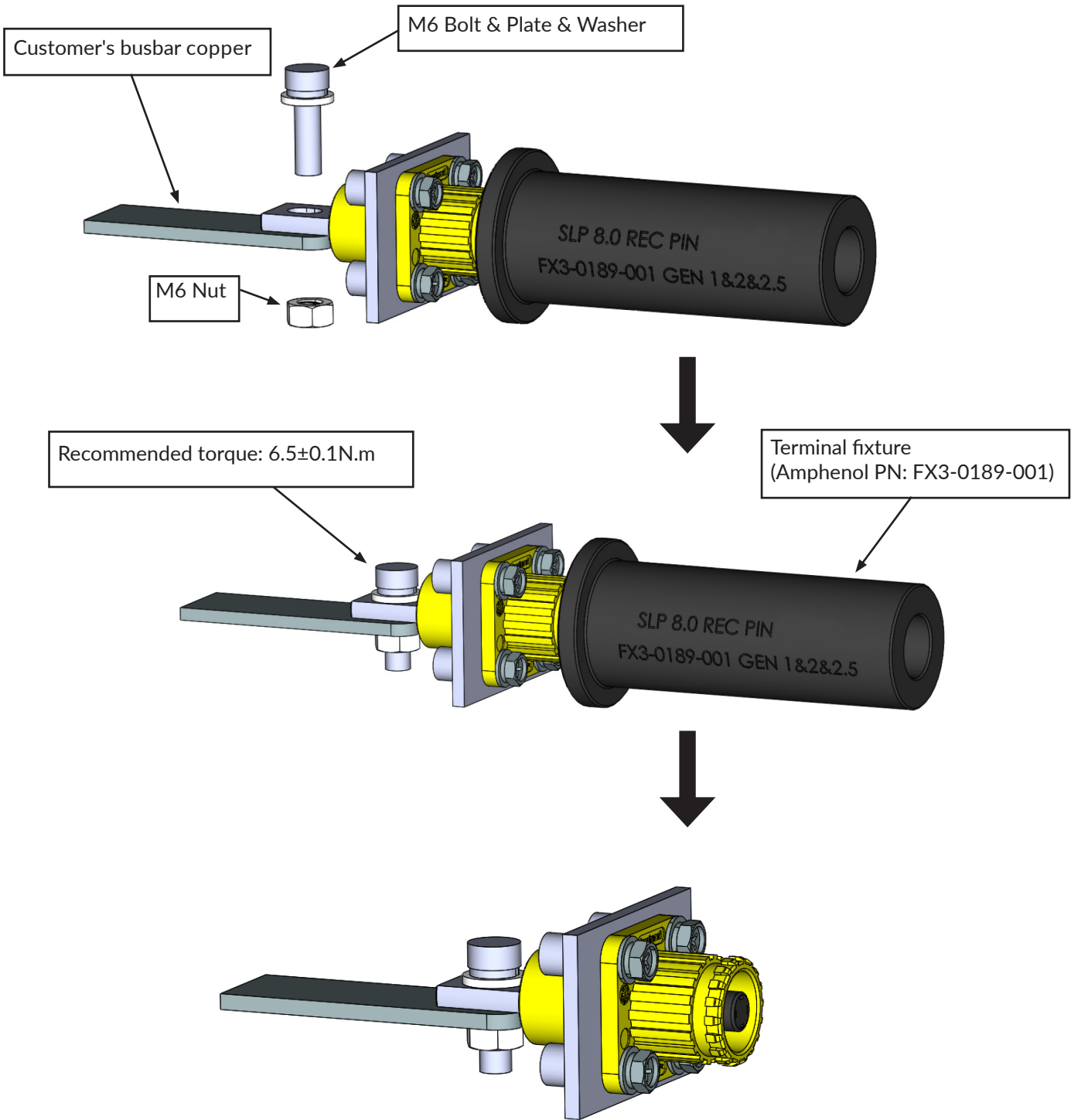
Recommended screw is GB 9074.13 M4.



Notes:

The customer shall verify the recommended torque base on your application and modify it if necessary.

**Step 2: Connect receptacle terminal with customer's busbar copper**



- 1): Pass receptacle tail through the hole of the mounting panel
- 2): Insert the terminal fixture (Amphenol PN: FX3-0189-001) into the receptacle
- 3): M6 bolt is assembled in sequence copper busbar and plate and washer and nut
- 4): Tighten screws by wrench, then take out the terminal fixture

Notes:

- The busbar copper (or others application) needs to be fixed during installation. The customer shall verify the recommended torque base on your application and modify it if necessary. The function of the terminal fixture is to reduce the deflection of the terminal installation process, and the customer can determine whether it is needed according to the actual process. During the process of using the terminal fixture, the handle should be tightly held to prevent it from swinging.

#### Revision History

Revision	Date	Notes
A	Nov. 11, 2021	First release
B	July 27, 2023	Add terminal fixture

ASSEMBLY WORK INSTRUCTION

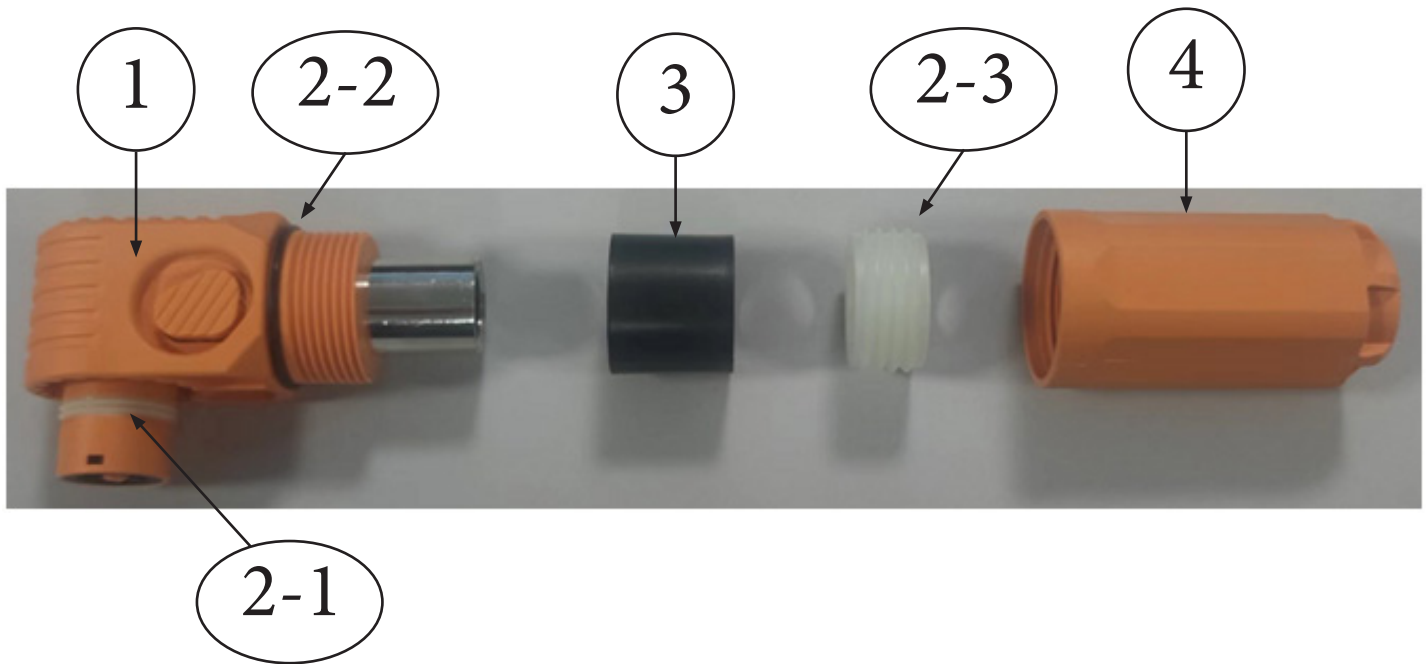
**SurLok Plus™ 10.3mm 1500V**

**Right Angle Plug**

**Part Number:**  
**SLPHPC( )B( )( )**



## Part 1: Package Contents



① : Connector Body

② : Sealing Parts

2-1: Barrel sealing (Not included when there's no sealing requirement)

2-2: O-Ring (Not included when there's no sealing requirement)

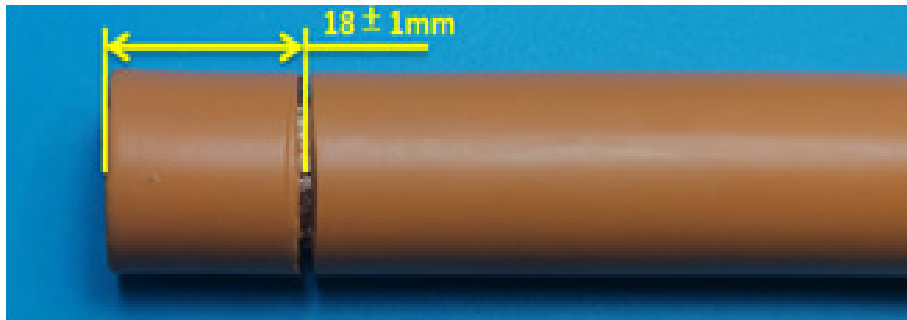
2-3: Rubber Grommet (Not included when there's no sealing requirement)

③ : Inside Spider (Not included when there's no sealing requirement)

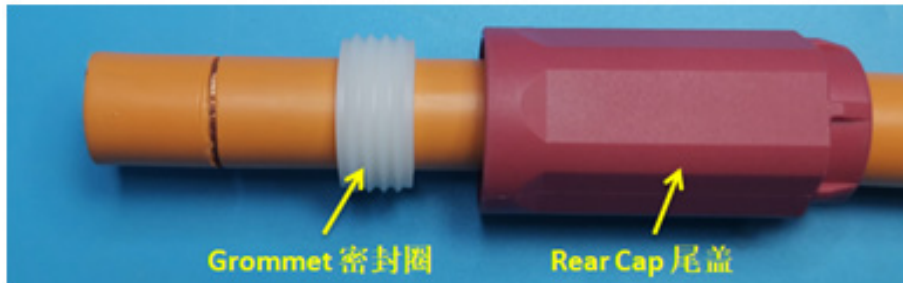
④ : Rear Cap

## Part 2: Plug Assembly

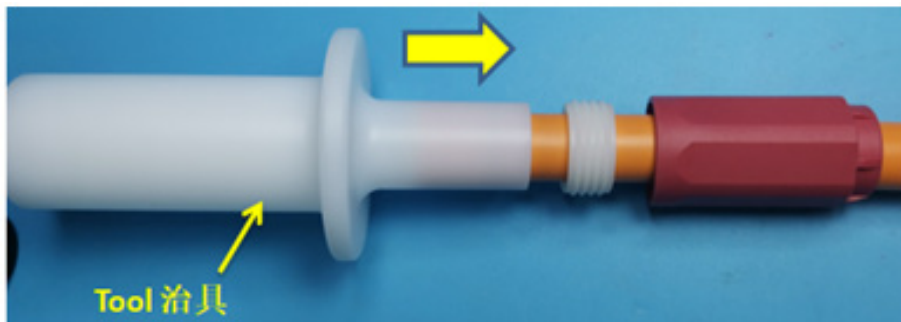
**Step 1: Wire cutting and stripping** (Apply for 2/0 AWG or 70mm<sup>2</sup> & 3/0 AWG or 95mm<sup>2</sup> Cable)  
Stripping conductor: 18±1mm



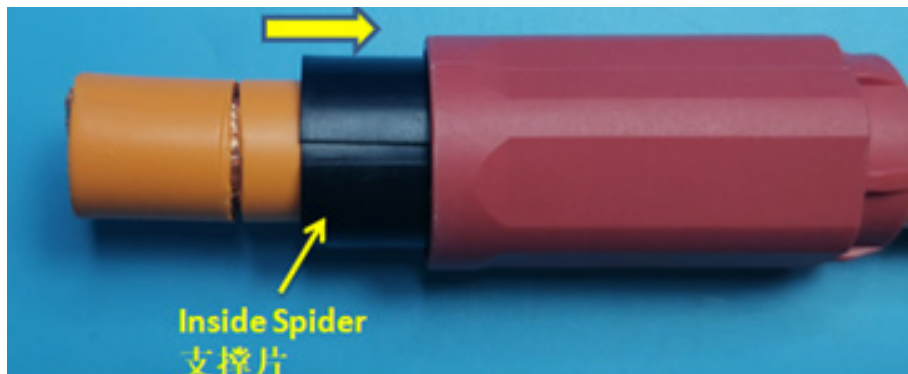
**Step 2: Un-assemble Grommet and rear cap over the cable as shown.**



**Step 3: Use the tool (FX3-067-001) to fit the grommet to the bottom of rear cap**



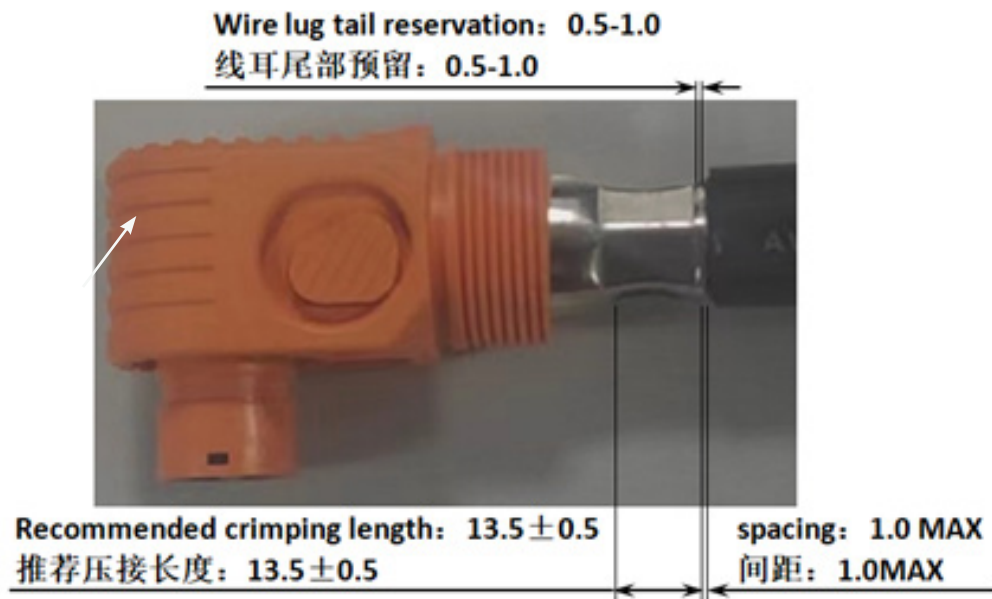
**Step 4: Assemble the insidespider into the rear cap**



**Step 5:** Put the cable conductor into the lug



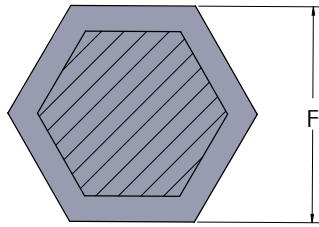
**Step 6:** As shown in the figure, crimp the part where the lug contacts the cable conductor  
(Note: The cable crimping methods of 70SQMM and 95SQMM are different)



Cable Size	Recommended Cable Range	Cable Pullout Force
2/0 AWG or 70mm <sup>2</sup>	15.5±0.3 mm	3400N Min.
3/0 AWG or 95mm <sup>2</sup>	18.2±0.3 mm	4200N Min.



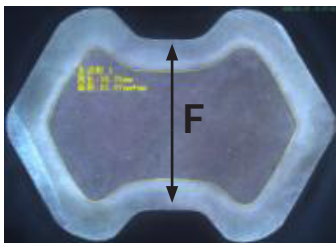
(a). 70SQmm cable crimping method is as follows:



Recommended Dist across Flats F
$12.2 \pm 0.1$ mm

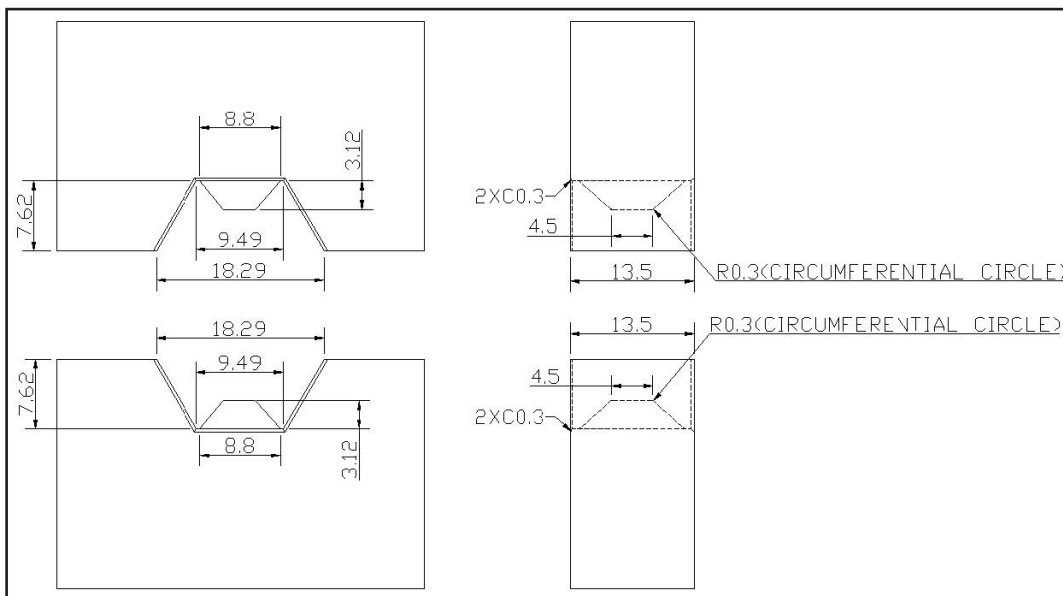
(70SQ crimping equipment is recommended to use a 6-sided endless knife die)

(b). 95SQmm cable crimping method is as follows:



Recommended Dist across Flats F
$9.1 \pm 0.05$ mm

(The recommended dimensions of special crimping tool die are as follows)



Notes: The recommended crimp sizes are only for reference. The customer should adjust them according to cable specification and crimp tool and test results including temperature rise and metallographic analysis and pullout force.

### Step 7: Assemble rear shell



Tighten rear shell to the indicated location shown as picture above by hand or tool.

The recommended torque is below:

1.5~2.0 Nm

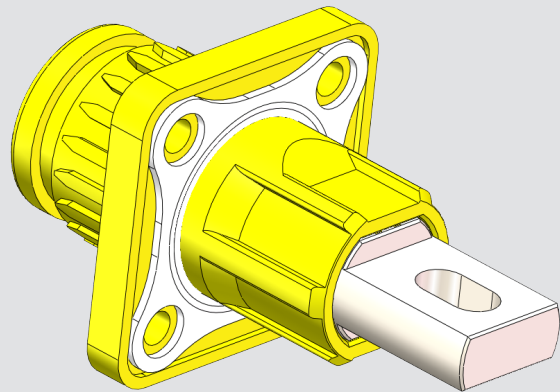
#### Revision History

Revision	Date	Notes
E	June 20, 2022	Updated crimping dimensions of step 6 detail and recommended die specifications

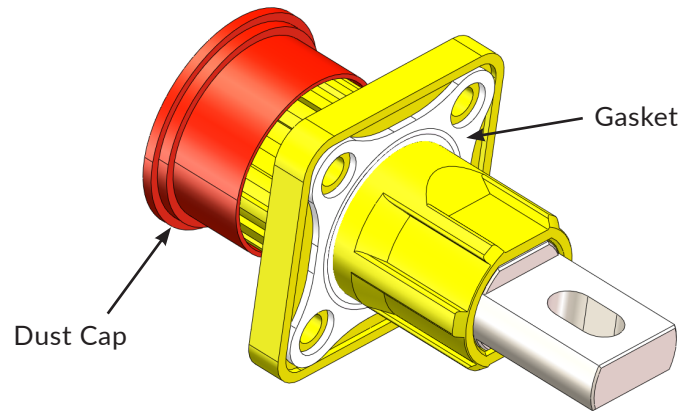
ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 10.3mm 1500V**  
**Receptacle Busbar Termination**

**Part Number:**  
**SLPHIRCBP( )( )**



# Part 1: Package Contents



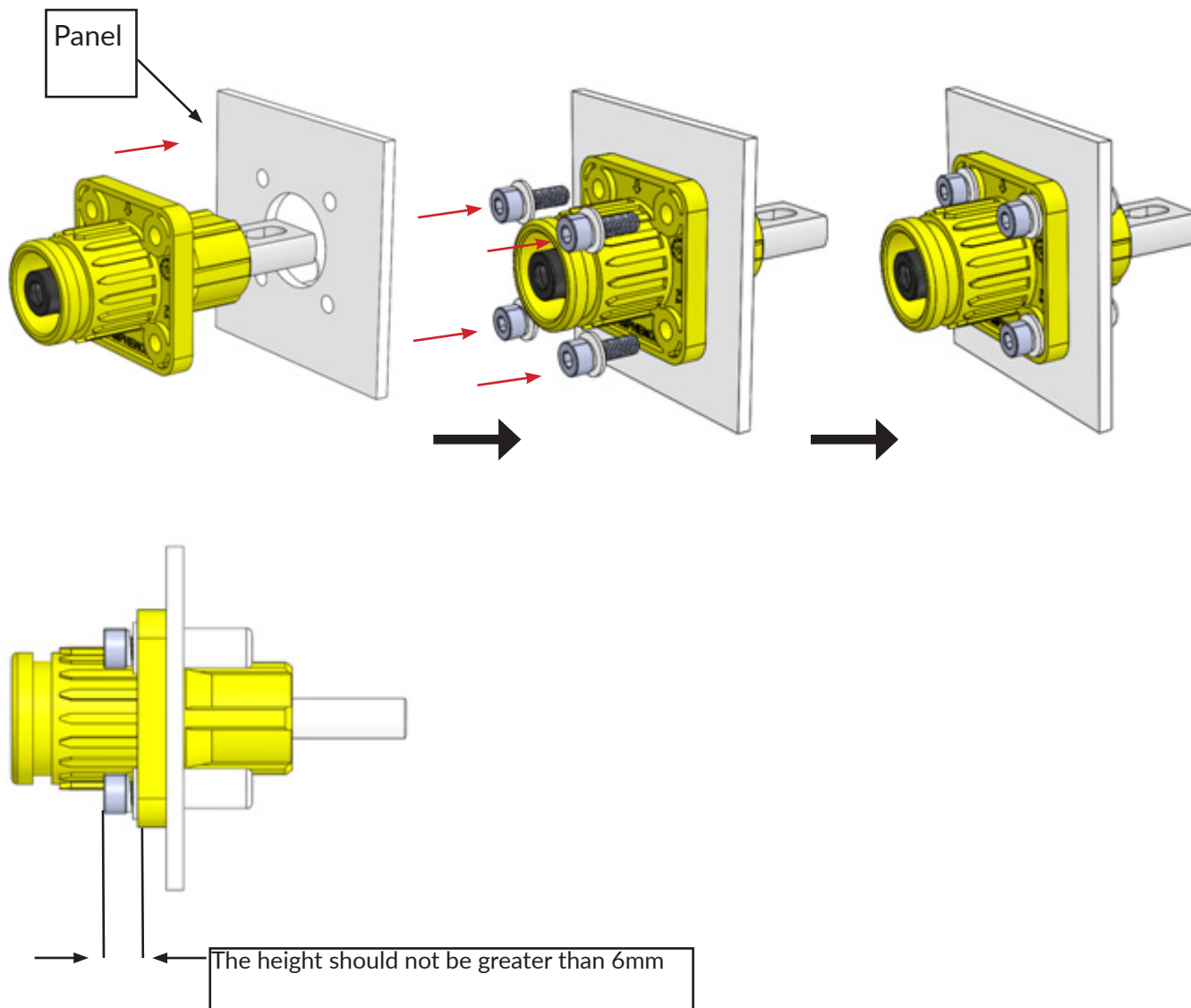
## Receptacle connector

Notes: There will be no gasket when no sealing requirement.

## Part 2: Receptacle Assembly

**Step 1: Tighten housing onto the panel with M4 screws (recommended torque is 0.8~1.0 N.m)**

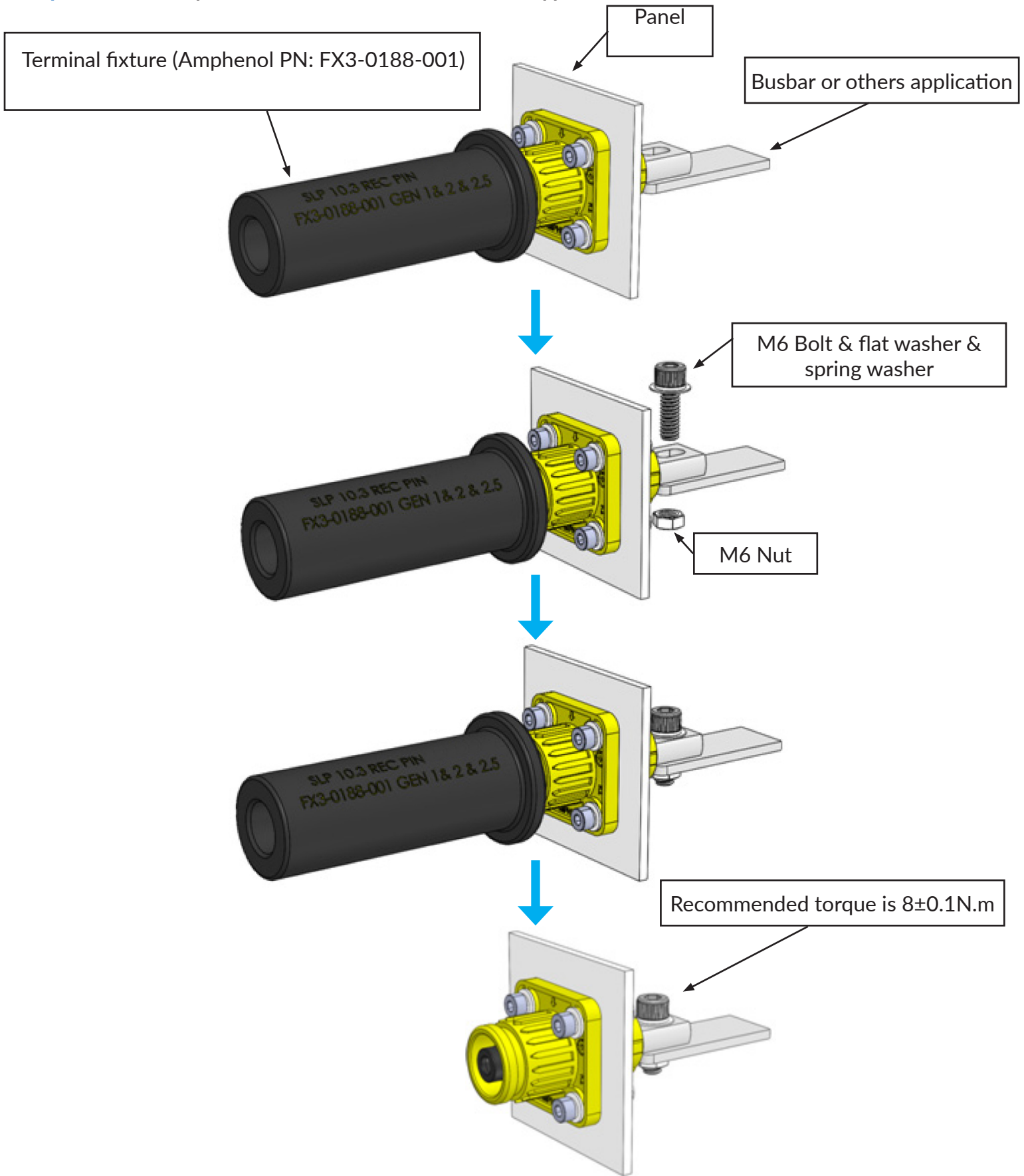
- (1) Recommended M4 bolts refer to GB/T 70.1-2000 ( eqv ISO 4762:1997)
- (2) Recommended M4 spring lock washer refer to GB 93-87
- (3) Recommended M4 plain washer refer to GB 97.1-2002



Notes:

The customer shall verify the recommended torque base on your application and modify it if necessary.

**Step 2: Connect receptacle terminal with customer's busbar copper**



(1): Align the installation holes of the copper bar with the installation holes at the tail of the socket.

(2): Insert the terminal fixture (Amphenol PN : FX3-0188-001) into the receptacle.

(3): Thread the M6 studs through the anti loosening pad, washer, copper bar, and nut in sequence.

(4): Tighten screws by tool, then remove the terminal fixture.

Notes: The Busbar (or others application) needs to be fixed during installation. During the process of using terminal fixture, the handle should be tightly held to prevent it from swinging. The customer shall verify the recommended torque base on your application and modify it if necessary. The function of the terminal fixture is to reduce the deflection of the terminal installation process, and the customer can determine whether it is needed according to the actual process.

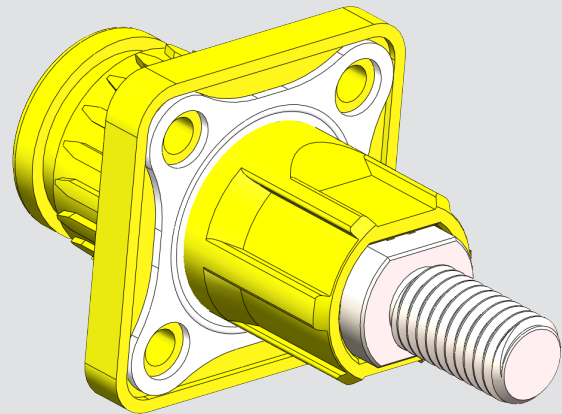
Revision History

Revision	Date	Notes
A	Jan. 5, 2020	First Release
B	July 24, 2020	Update Package Contents

ASSEMBLY WORK INSTRUCTION

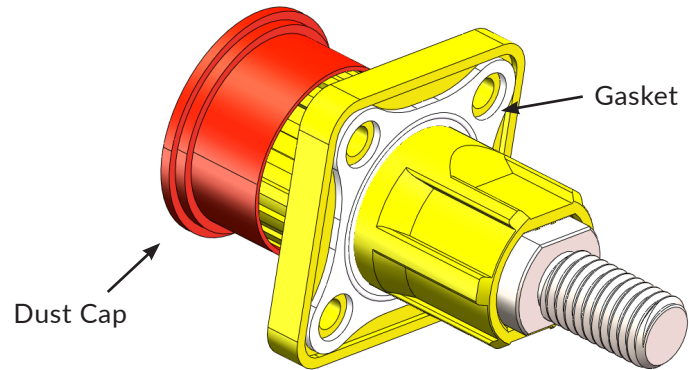
**SurLok Plus™ 10.3mm 1500V**  
**Receptacle Threaded Termination**

**Part Number:**  
**SLPHIRCTP( )( )**





# Part 1: Package Contents



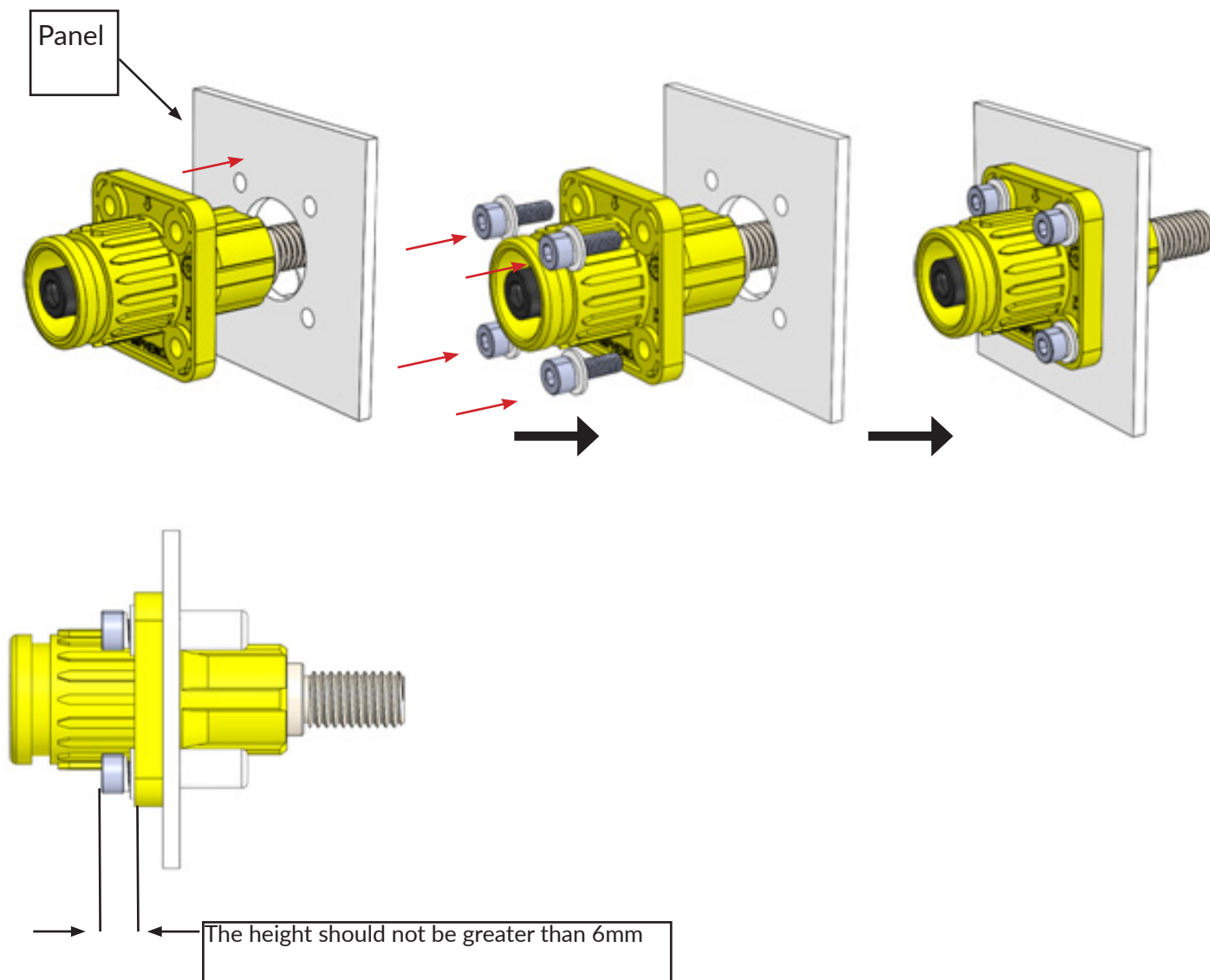
## Receptacle connector

Notes: There will be no gasket when no sealing requirement.

## Part 2: Receptacle Assembly

**Step 1: Tighten housing onto the panel with M4 screws (recommended torque is 0.8~1.0 N.m)**

- (1) Recommended M4 bolts refer to GB/T 70.1-2000 ( eqv ISO 4762:1997)
- (2) Recommended M4 spring lock washer refer to GB 93-87
- (3) Recommended M4 plain washer refer to GB 97.1-2002



Notes:

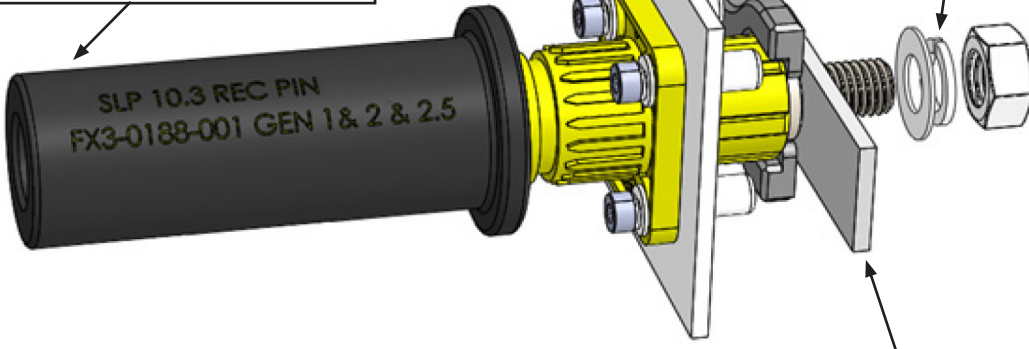
The customer shall verify the recommended torque base on your application and modify it if necessary.

Terminal spanner (Amphenol PN: FX3-0024-001)

Panel

M10 Nut & flat washer & spring washer

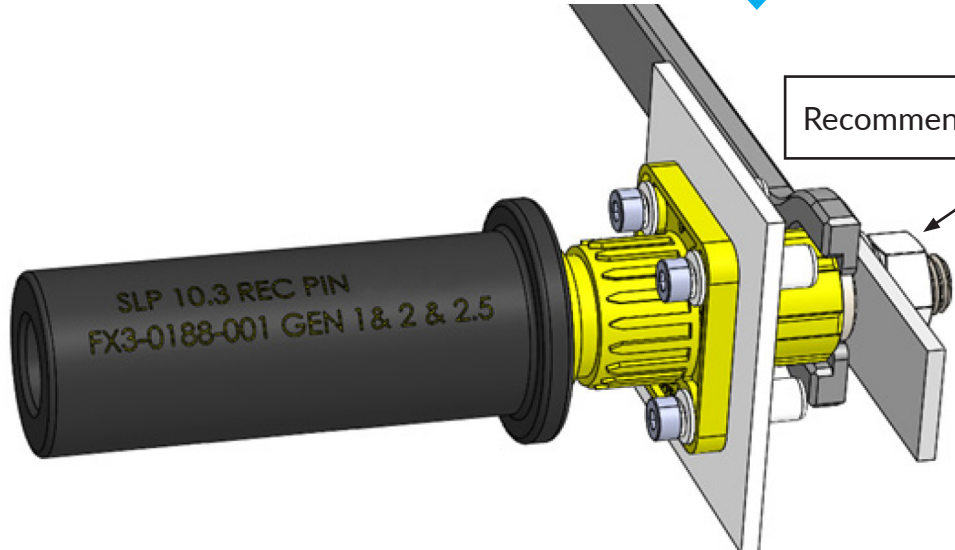
Terminal fixture (Amphenol PN: FX3-0188-001)



Busbar or others application



Recommended torque is  $13.5 \pm 0.5 \text{ N.m}$



(1): Insert the terminal fixture (Amphenol PN : FX3-0188-001) into the receptacle.

(2): Thread the installation holes of copper bars or other applications through the studs at the end of the receptacle.

(3): Insert the washer, anti loosening spring washer, and M10 nut into the bolt at the tail of the receptacle in sequence.

(4): Fix the terminal with a terminal fixing wrench (Amphenol part number: FX3-0024-001), and then tighten the M10 nut with a tool.

(5): Finally, remove the terminal fixture and terminal wrench.

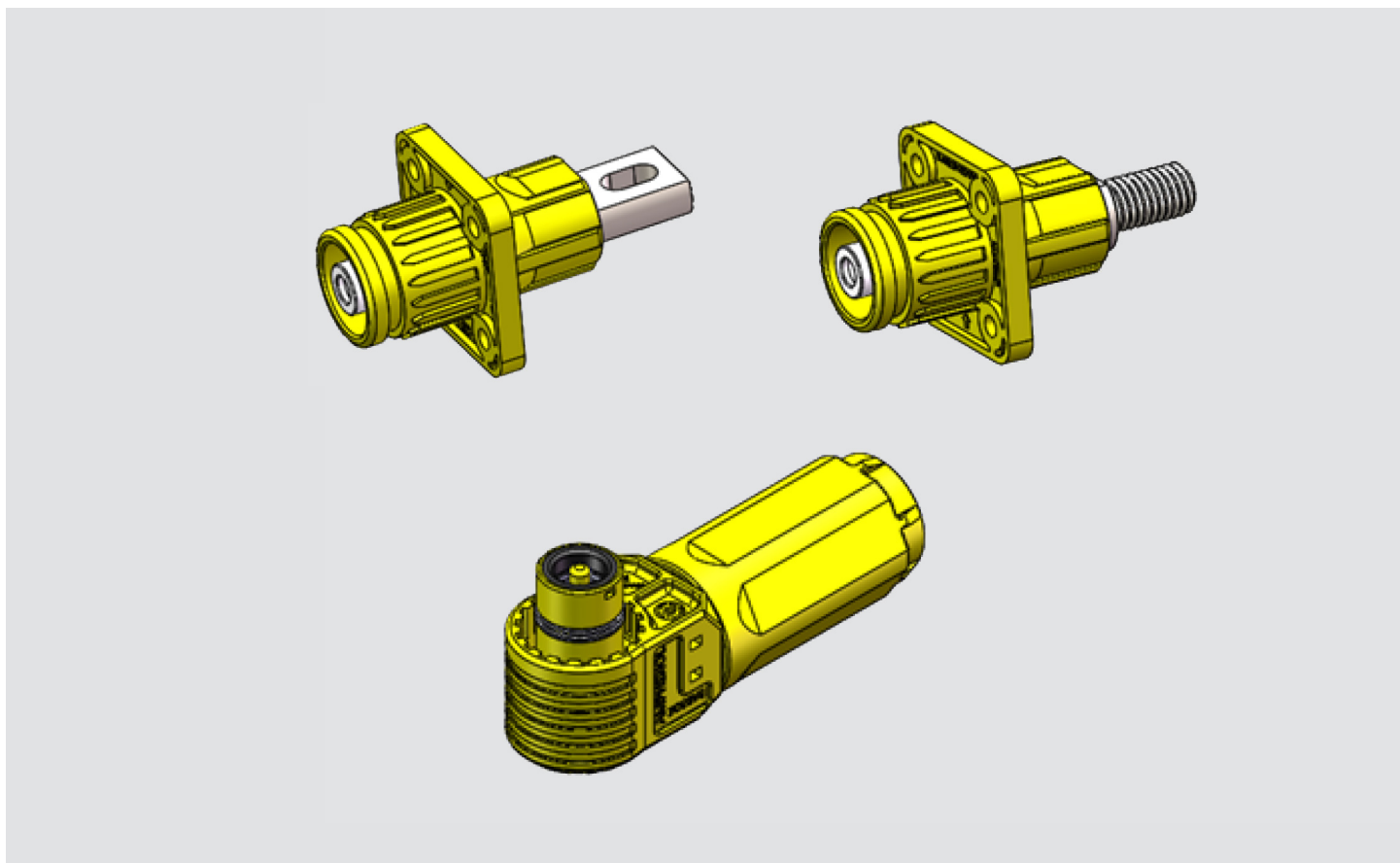
Notes: The Busbar (or others application) needs to be fixed during installation. During the process of using terminal fixture, the handle should be tightly held to prevent it from swinging. The customer shall verify the recommended torque base on your application and modify it if necessary. The function of the terminal fixture is to reduce the deflection of the terminal installation process, and the customer can determine whether it is needed according to the actual process.

#### Revision History

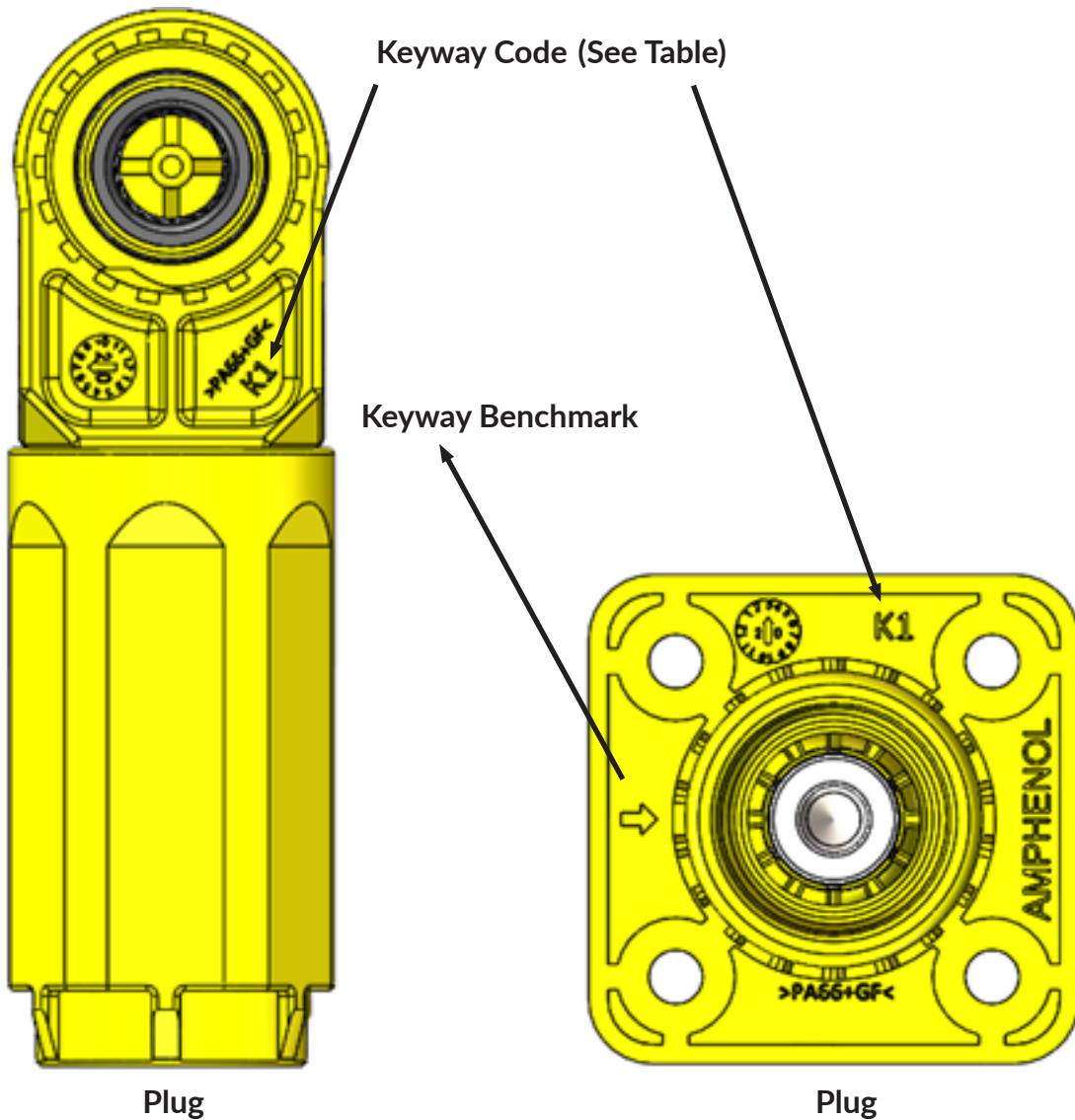
Revision	Date	Notes
A	Jan. 20, 2020	First Release
B	July 25, 2020	Update Package Contents

ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 10.3mm 1500V**  
**Right Angle Mating and Unmating Guide**



# Part 1: Keyway Description



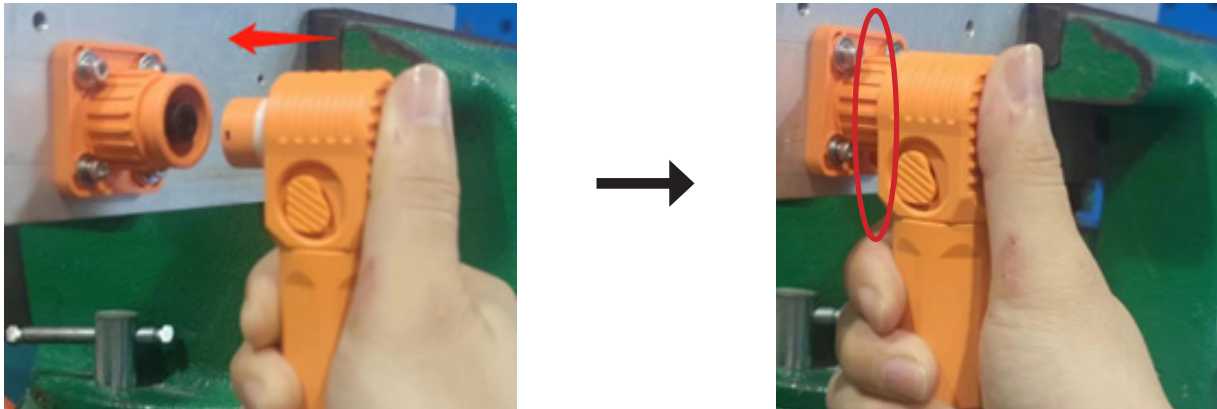
Keyway Code Table	
Y°	Keyway Code
20°	K1
30°	K2
45°	K3

## Notes:

- This product is not suitable for live plugging and unplugging
- To prevent the plug from being pulled out by mistake, it is recommended to add a protection mechanism to the device.

## Part 2: Mating Operation

**Step 1:** Preliminary mating: Insert the plug and receptacle into the following positions shown in the figure.



**Step 2:** Rotate the Plug and adjust the outgoing direction of the cable to the desired position.



**Step 3:** Align the key with the keyway and push the plug vertically into the receptacle, until you hear a "click" to indicate that plug and receptacle mated well.

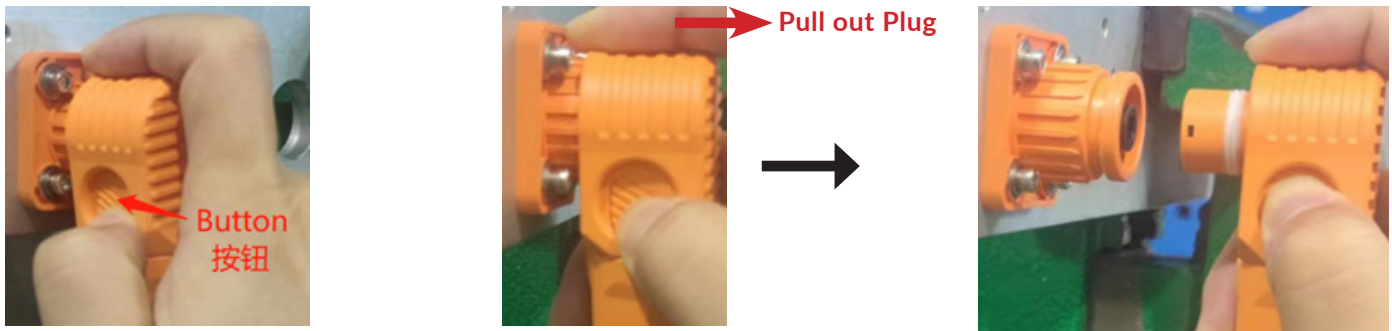


Note:

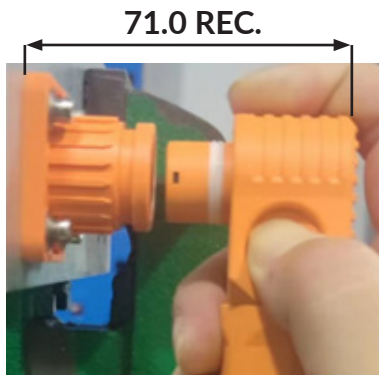
Pull the plug body slightly by hand to reconfirm if they mated well

## Part 3: Unmating Operation

After turning off the power, press the button and then pull out the plug horizontally in the direction shown below.



**Note 1:** For end use, the separation active space required is 71.0 mm minimum.



**Step 2:** Do not deviate from the axis direction of the receptacle until it was separation complete, or it has a risk to damage the connector.





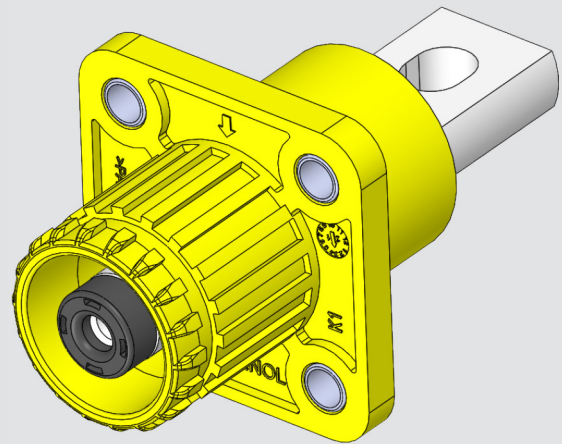
### Revision History

Revision	Date	Notes
A	Jan. 1, 2020	First Release
B	Nov. 1, 2022	Update the minimum operating space: 67.5-71.0
C	May 16, 2023	Update actual homework photos

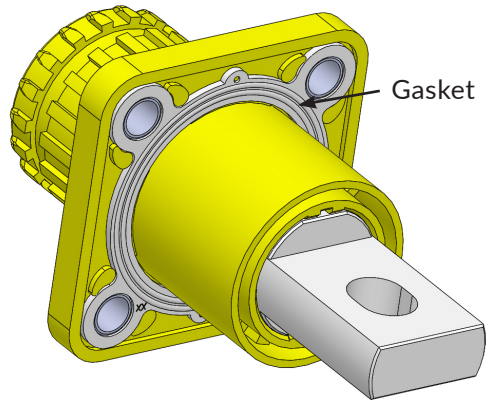
ASSEMBLY WORK INSTRUCTION

**SurLok Plus™ 12.0mm 1500V**  
**Receptacle Busbar Termination**

**Part Number:**  
**SLPHIRDBP( )( )**



# Part 1: Package Contents



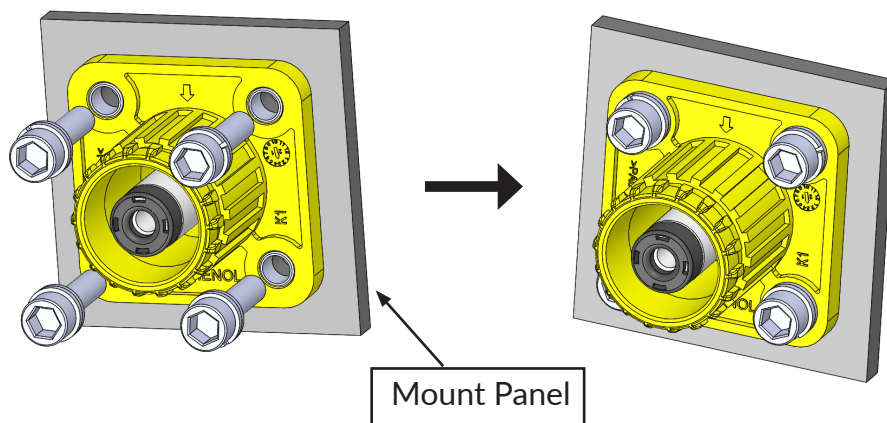
## 1) Receptacle connector

Notes: There will be no gasket when choosing unsealing type..

## Part 2: Receptacle Assembly

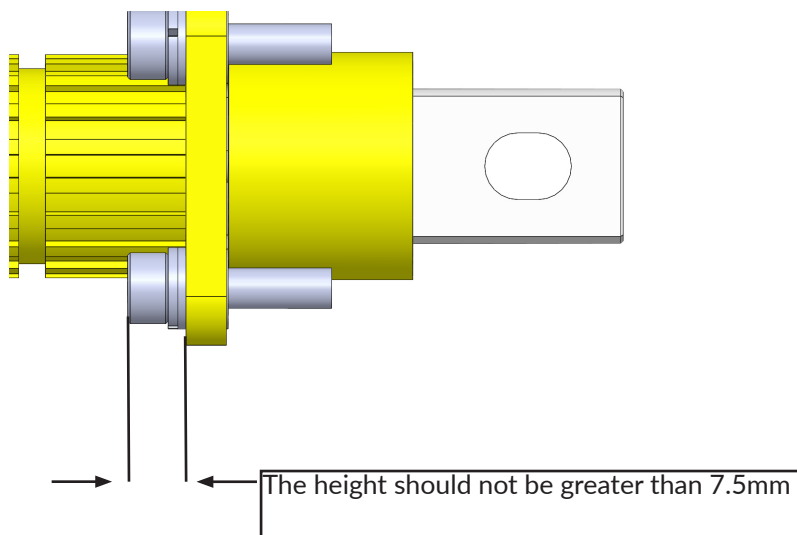
**Step 1: Tighten housing onto the panel with M5 screws (recommended torque is 1.4-1.6 N.m)**

- (1) Recommended M5 bolts refer to GB/T 70.1-2008.
- (2) Recommended M5 spring washer refer to GB 93-87.
- (3) Recommended M5 flat washer refer to GB 97.1-2002.

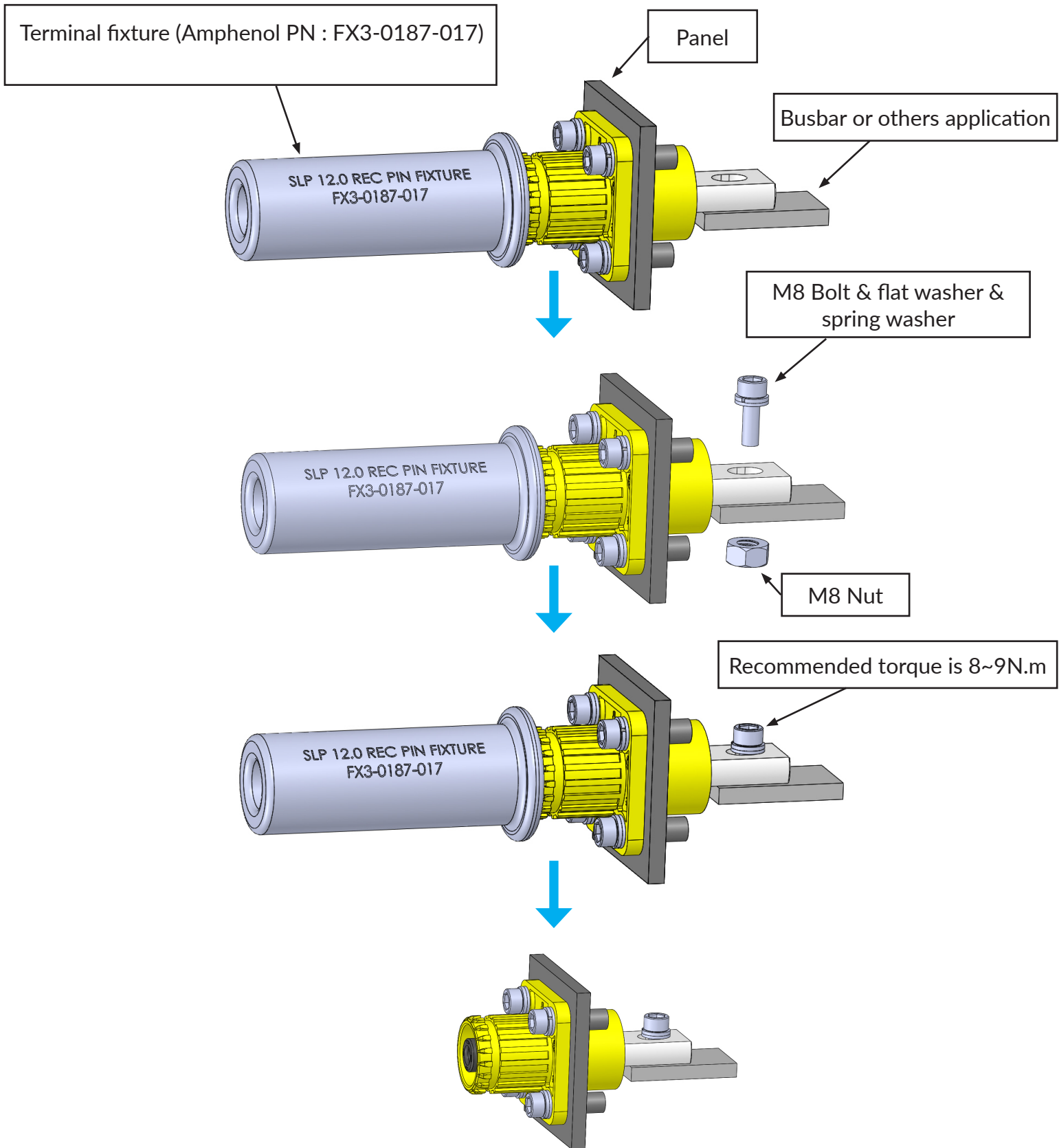


Notes:

The customer shall verify the recommended torque base on your application and modify it if necessary.



**Step 2: Connect receptacle terminal with customer's busbar**



(1): Pass receptacle tail through the hole of mounting panel

(2): Insert the terminal fixture (Amphenol PN : FX3-0187-017) into the receptacle

(3): Studs pass through washer and copper busbar and nut in proper order

(4): Tighten screws by tool, then remove the terminal fixture.

Notes: The Busbar (or others application) needs to be fixed during installation. The customer shall verify the recommended torque base on your application and modify it if necessary. The function of the terminal fixture is to reduce the deflection of the terminal installation process, and the customer can determine whether it is needed according to the actual process. During the process of using terminal fixture, the handle should be tightly held to prevent it from swinging.

#### Revision History

Revision	Date	Notes
A	Nov. 15, 2021	First Release
B	Oct. 19, 2022	Update Picture
C	Jan. 29, 2023	Optimize the assembly sequence
D	July 24, 2023	Add terminal fixture