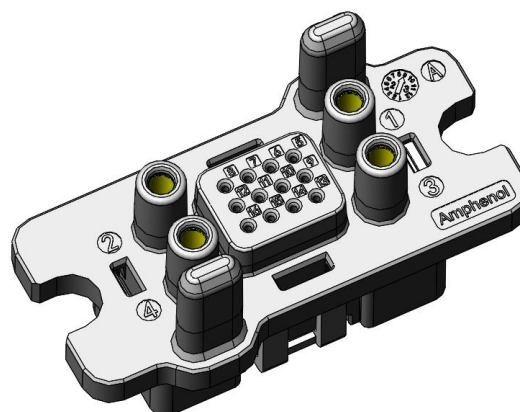
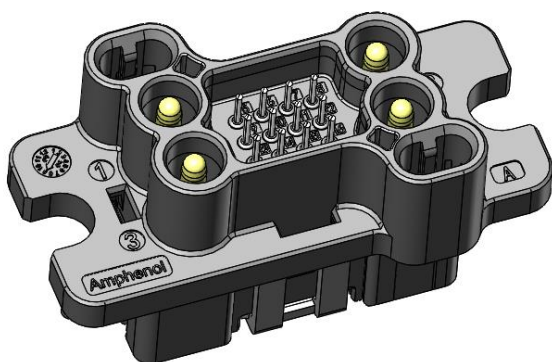
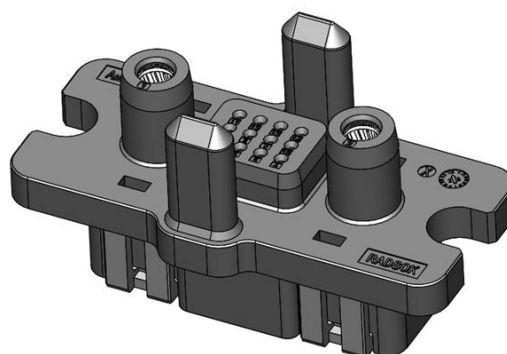
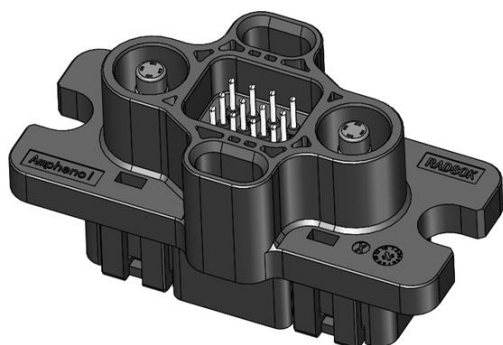


CONNECTOR ASSEMBLY INSTRUCTIONS

## Floating Mate Series

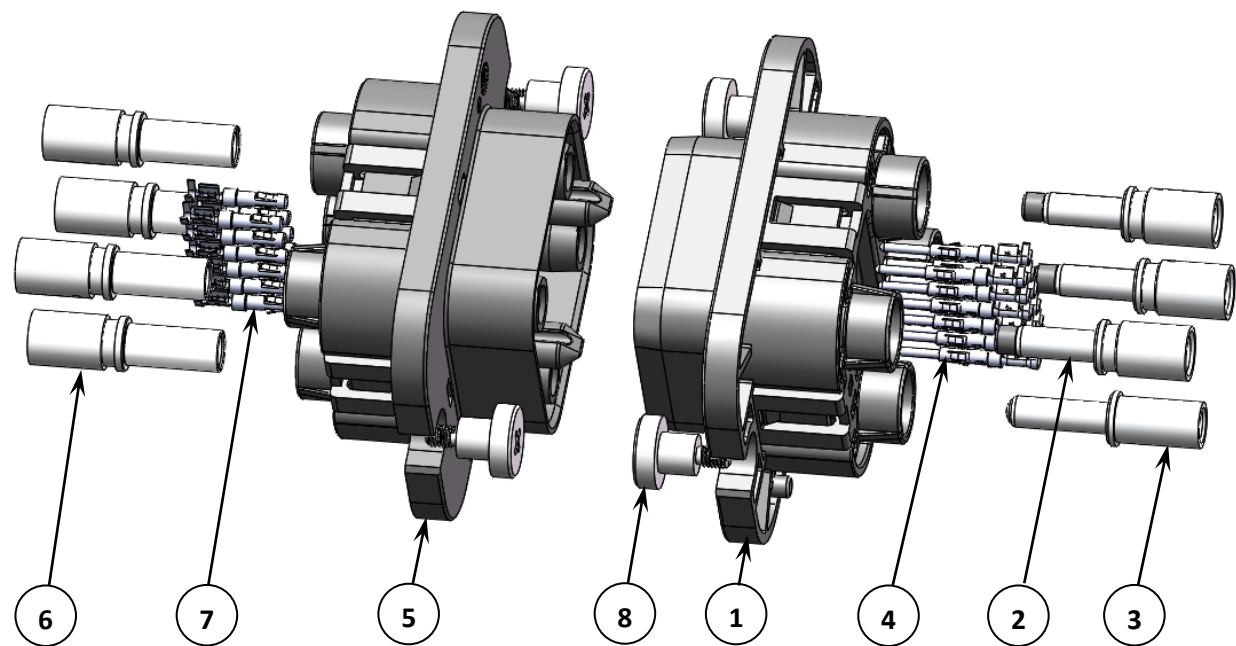


# Table of Contents

<b>1.</b>	5.7mm 4+12 Contacts Floating Blind Mate Connector Work Instruction .....	3
	Part 1: Package Contents.....	3
	Part 2: Terminal Crimping .....	5
	Part 3: Installation of Connectors .....	10
<b>2.</b>	5.7mm 2+12 Contacts Floating Blind Mate Connector Work Instruction .....	14
	Part 1: Package Contents .....	14
	Part 2: Terminal Crimping .....	16
	Part 3: Installation of Connectors .....	21
<b>3.</b>	4+12 MINI Floating Blind Mate Connector .....	25
	Part 1: Package Contents .....	25
	Part 2: Terminal Crimping .....	26
	Part 3: Installation of Connectors .....	29
<b>1.</b>	4+12 MINI Floating Blind Mate Connector Disassembly Work Instruction .....	32
	Part 1: Disassembly Special Tool Instruction .....	32
	Part 2: Disassembly Methods and Steps .....	32

# 5.7mm 4+12 Contacts Floating Blind Mate Connector Work Instruction

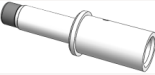
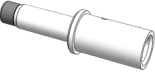
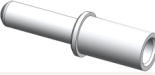
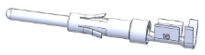



## Part 1: Package Contents



**Note:** The illustration shows the mated assembly. For storage and shipping not all components are part of the assembly package according to the order part number.

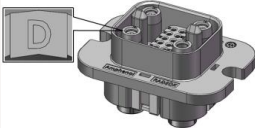
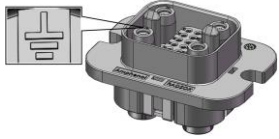

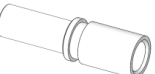
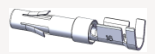


### Plug:

No.	Product name	Part number	Picture	Remarks
①	Plug Assembly	C107816501000		This product does not have a ground wire marking.
		C107816501010		This product has a ground wire marking.

No.	Product name	Part number	Picture	Remarks
②	5.7mm Pin Male	C10781685011		Applicable cable size: 16mm <sup>2</sup>
		C10781685021		Applicable cable size : 25mm <sup>2</sup>
③	5.7mm PE Pin	C10781683011		Terminal products have ground PIN application requirements.
④	Signal Pin Male	C10731537161		Applicable Cable Size: 16AWG
	(Stamping type)	C10731538201		Applicable Cable Size: 22 AWG
	Signal Pin Male	ZH795850161		Applicable Cable Size: 16 AWG
	(Turning type)	ZH795850201		Applicable Cable Size 22 AWG

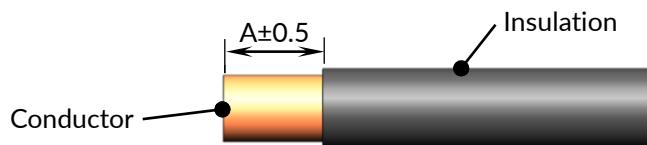
\*Item 3 applies for grounding connection.

#### Receptacle:

No.	Product name	Part number	Picture	Remarks
⑤	Receptacle Assembly	C107816511000		This product does not have a ground wire marking.
		C107816511010		This product does not have a ground wire marking
⑥	5.7mm Pin Female	C10781690011		Applicable cable size: 16mm <sup>2</sup>
		C10781690021		Applicable cable size: 25mm <sup>2</sup>
⑦	Signal Pin Female	C10780107161		Applicable cable size: 16 AWG
		C10780107201		Applicable cable size: 22 AWG
⑧	Floating Screw	C10781688000		Common Parts

## Part 2: Terminal Crimping

### Step 1: Cable Cutting and Stripping



Cable Category	Cable Specification	A
Power Cable	16mm <sup>2</sup>	10.5
	25mm <sup>2</sup>	10.5
Signal Cable	16 AWG	4.5
	22 AWG	4.5

See “Figure 1” and “Figure 2”:



Figure 1

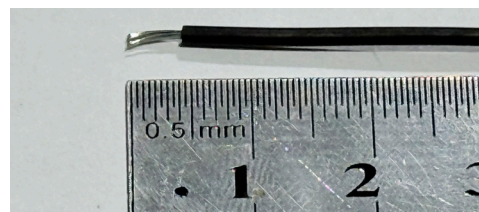
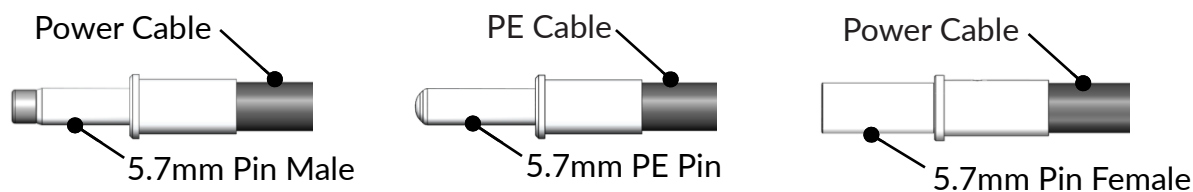


Figure 2

**Step 2:** Insert the cable conductor part into the terminal crimping hole (slot) according to the following specifications and terminal types.

PIN Specification Pin	Applicable Cable Specifications
16SQMM	16mm <sup>2</sup>
25SQMM	25mm <sup>2</sup>
16#	16 AWG
20#	22 AWG

Power Pin and PE Pin:



See “Figure 3” and “Figure 4”:

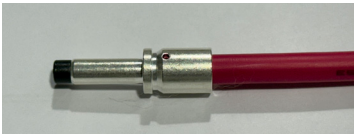
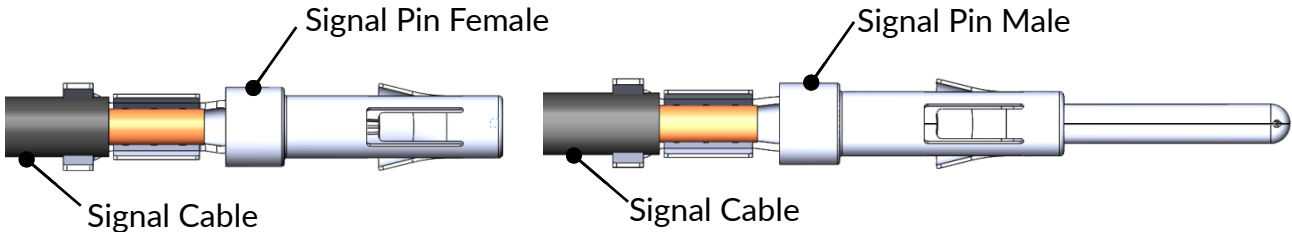


Figure 3



Figure 4

Signal Pin:



See “Figure 5” and “Figure 6”:

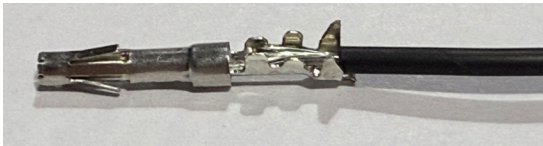
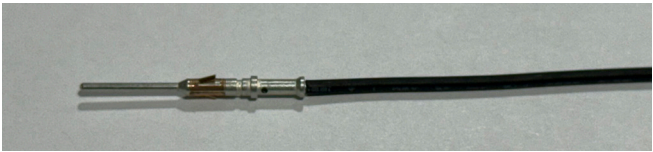


Figure 5

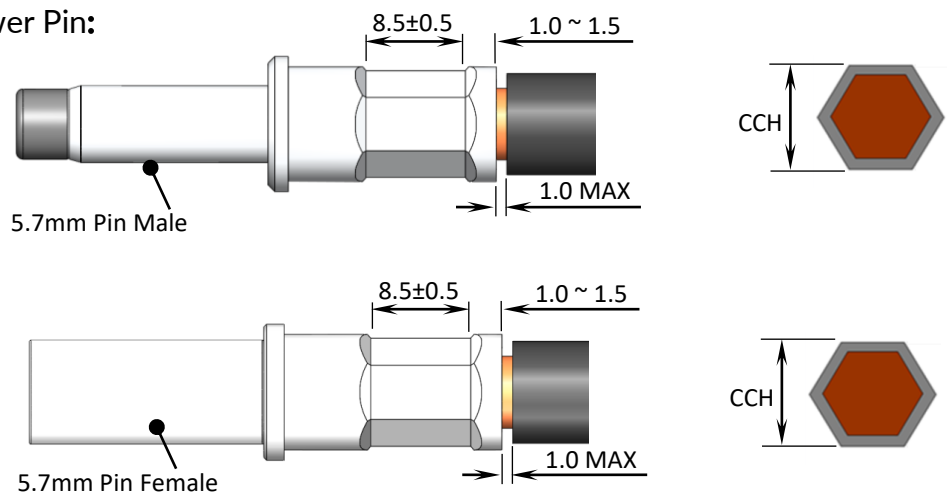


Machined Contact Example

Figure 6

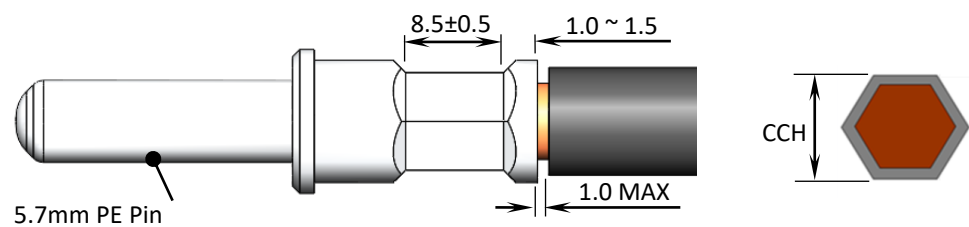
**Step 3:** Crimp the terminal according to the following specifications

**Power Pin:**



Cable size	Recommend across flats CCH	Cable Pullout Force
16 mm <sup>2</sup>	6.2±0.1 mm	1500N Min.
25 mm <sup>2</sup>	7.2±0.1 mm	1900N Min.

**PE Pin:**



Cable size	Recommended across flats CCH	Cable pullout force
16 mm <sup>2</sup>	6.2±0.1 mm	1500N Min.

See “Figure 7” and “Figure 8”:



Figure 7

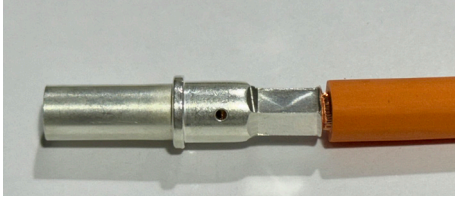
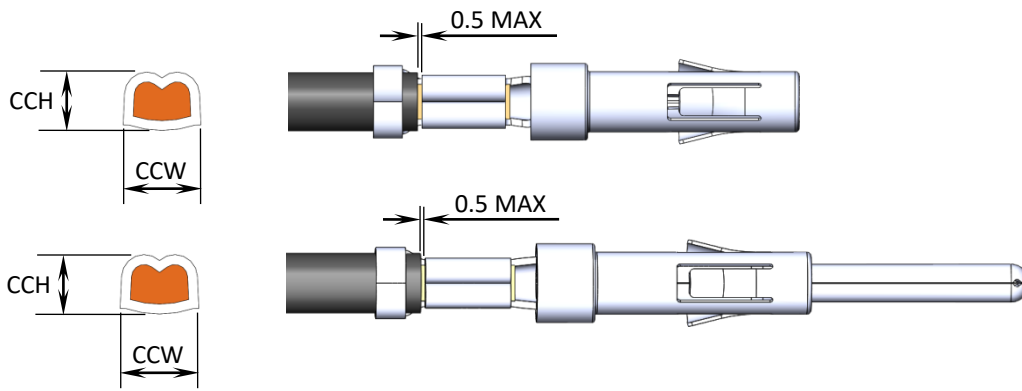


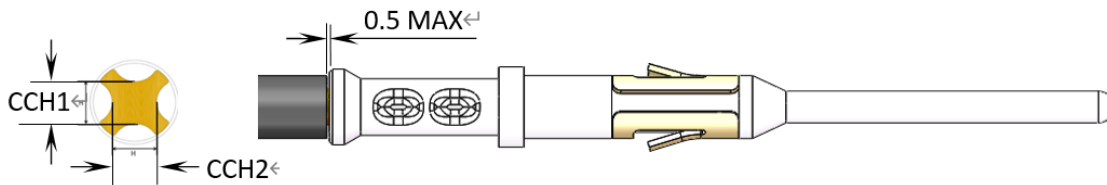
Figure 8

### Signal Pin (Stamping type):



Cable size	Recommended Across Flats CCW	Recommended Across Heights CCW	Cable Pullout Force
22 AWG	1.85±0.05 mm	0.95±0.05 mm	40N Min.
16 AWG	1.95±0.05 mm	1.55±0.05 mm	135N Min.

### Signal Pin (Turning type):



Cable size	Recommended Across Flats CCW	Recommended across height CCW	Cable Pullout Force
22 AWG	1.05±0.05 mm	1.05±0.05 mm	40N Min.
20 AWG			60N Min.
28 AWG	1.45±0.05 mm	1.45±0.05 mm	90N Min.
16 AWG			135N Min.

See “Figure 9” and “Figure 10”:



Figure 9



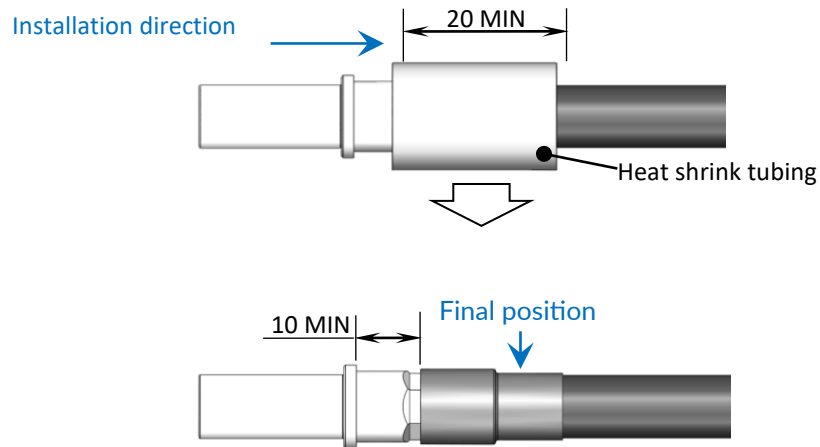
Machined Contact Example

Figure 10

**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 4:** Apply the heat shrink tube onto the cable as shown.



Suggested size of heat-shrinkable tube			
As Supplied		After Recovery	
Inside Diameter	Wall thickness	Inside Diameter	Wall thickness
15.4 ± 0.6	0.55 ± 0.15	≤7.5	1.06 ± 0.18

\*Recommended size is for reference only, guests should select appropriate size of heat-shrinkable tube according to cable O.D and actual application.

See “Figure 11” and “Figure 12”:



Figure 11



Figure 12

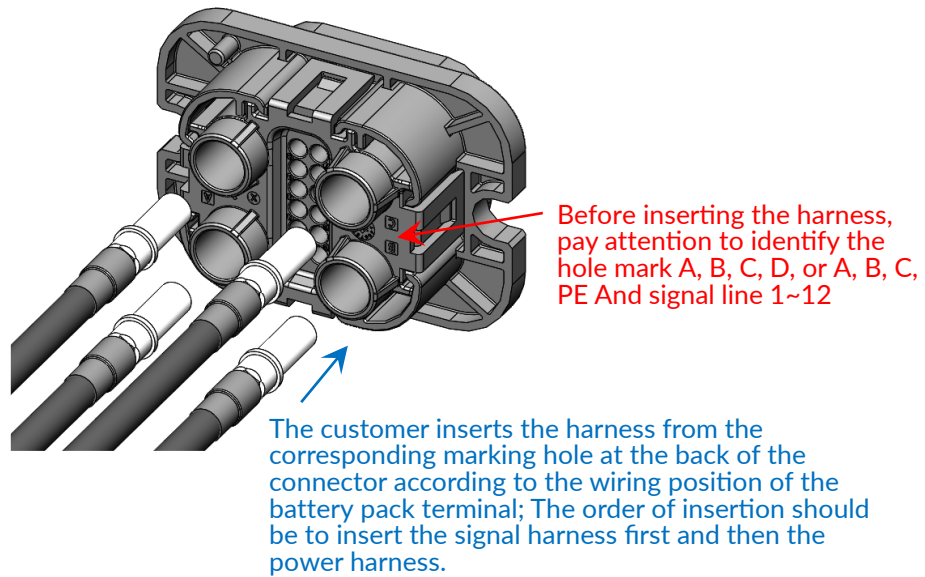
**Notes:** This contained power contacts, PE contacts, for 16mm<sup>2</sup>&25mm<sup>2</sup> cable.

# Part 3: Installation of Connectors

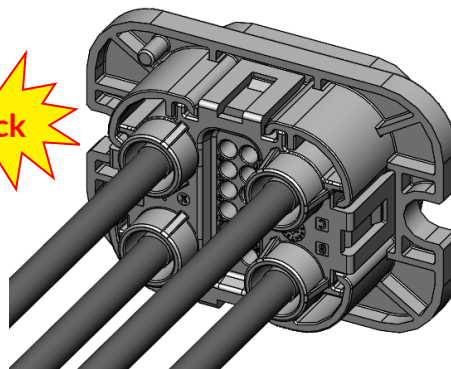
Installation interface size

Position	Interface dimension drawing	Installation diagram of corresponding view
Plug		
Receptacle		

**Step 1:** Installation of wiring harness and connector.



There's a "click" after terminals seated into position



See "Figure 13":

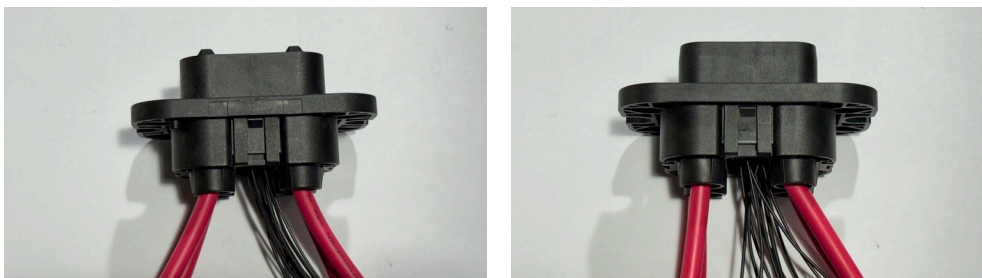
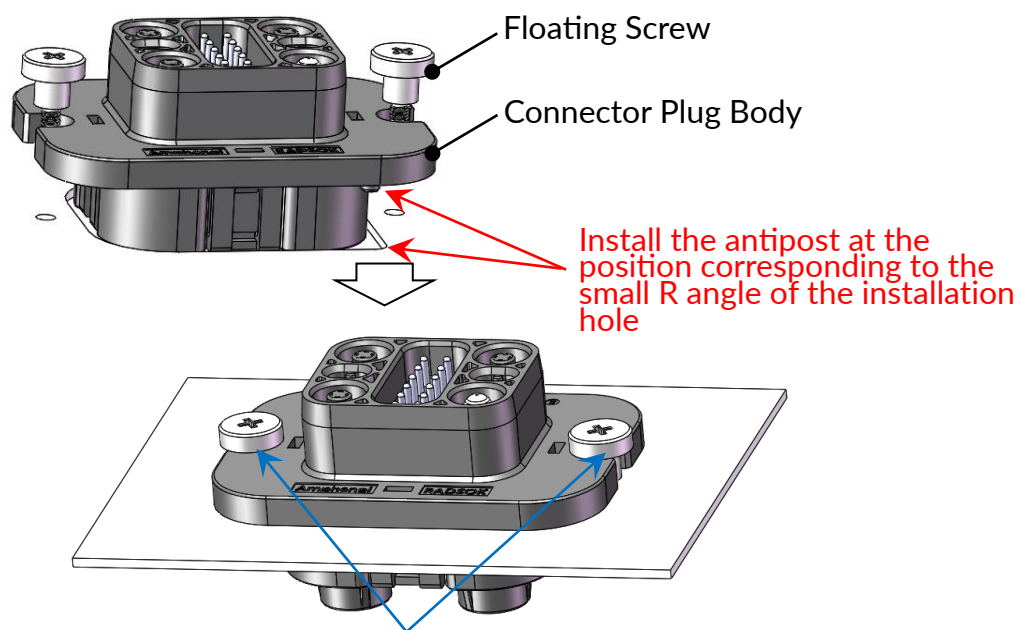


Figure 13

**Notes:** The hole position marked with "PE" can only be used to install PE PIN. If there is no PE PIN requirement, please select the connector model without "PE" mark.

**Step 2:** Assembly of connector panel.



Lock the M4 floating screw with the crosshead screwdriver (tightening torque 0.70.9N. m)

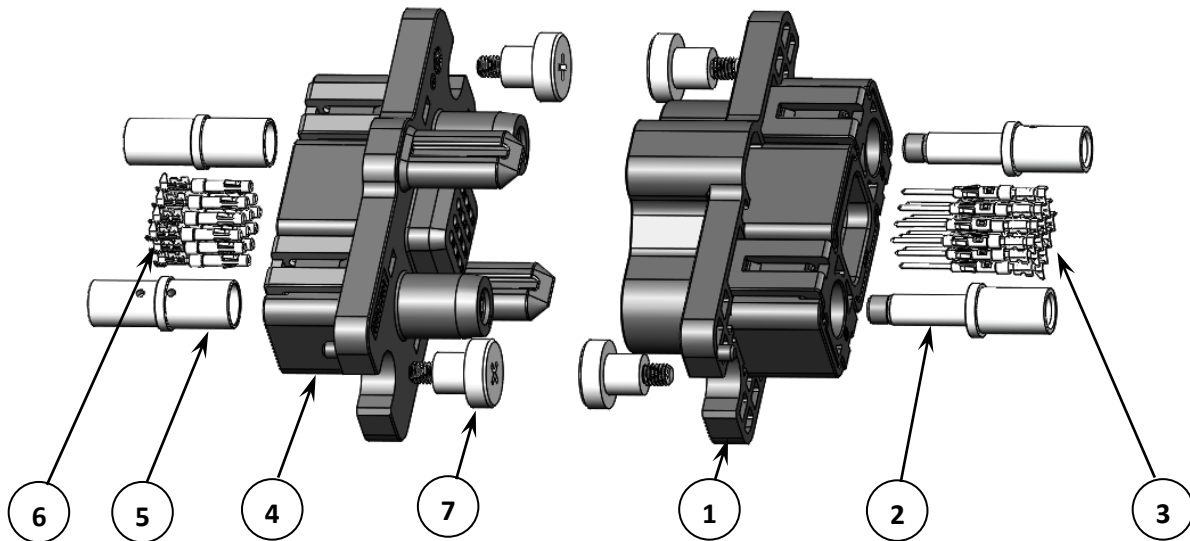
**Notes:** The installation method and requirements of connector plug body and connector receptacle body are the same.

### Revision History

Revision	Date	Notes
A	Jan. 28 <sup>th</sup> , 2023	Initial release
B	Jun. 30 <sup>th</sup> , 2023	Add a signal PIN of 16 # specification and change the new part number.
C	May. 10 <sup>th</sup> , 2024	Update the identification mark of the shell grounding wire
D	Nov. 13 <sup>th</sup> , 2024	Add crimping parameters for turning type signal terminals
E	Jun. 09 <sup>th</sup> , 2025	Update the specifications and crimping parameters of the signal terminal adapter cable

# 5.7mm 2+12 Contacts Floating Blind Mate Connector Work Instruction







## Part 1: Package Contents



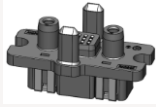




### Notes:

The illustration shows the mated assembly, For storage and shipping not all components are part of assembly package according to order part number.


### Plug

No.	Product name	Part number	Picture	Remarks
①	Plug Assembly	C107925831000		/
②	5.7mm Pin Male	C10792385001		Applicable cable size: 8 AWG or 10SQ (O.D: 10.0 MAX)
		C10792385011		Applicable cable size: 6 AWG or 16SQ (O.D: 10.0 MAX)
		C10792385021		Applicable cable size: 4 AWG or 25SQ (O.D: 10.0 MAX)
③	Signal Pin Male	C10793748201		Applicable cable size: 2022 AWG (O.D: 2.2 MAX) (Turning type)
		C10738774201		Applicable cable size: 2022 AWG (O.D: 2.2 MAX) (Stamping type)

Receptacle:

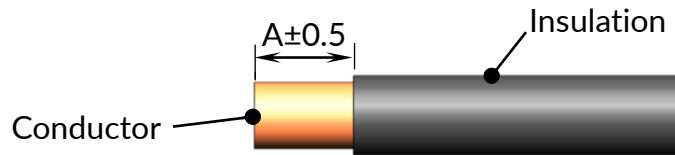
No.	Product name	Part number	Picture	Remarks
④	Receptacle Assembly	C107925841000		/
⑤	5.7mm Pin Female	C10792386001		Applicable cable size: 8 AWG or 10SQ (O.D: 9.6 MAX)
		C10792386011		Applicable cable size: 6 AWG or 16SQ (O.D: 9.6 MAX)
		C10792386021		Applicable cable size: 4 AWG or 25SQ (O.D: 10.4 MAX)
⑥	Signal Pin Female	C10780111201		Applicable cable size: 2022 AWG (O.D: 2.2 MAX)

Accessories:

No.	Product name	Part number	Picture	Remarks
⑦	Floating Screw	C10781688000		M4*P0.7

## Part 2: Terminal Crimping

### Step 1: Cable Cutting and Stripping



Cable Category	Cable Specification	A
Power Cable	8AWG & 10mm <sup>2</sup>	9.5±0.5
	6AWG & 10mm <sup>2</sup>	9.5±0.5
	4AWG & 25mm <sup>2</sup>	9.5±0.5
Signal Cable	22 AWG	4.5±0.5
	20 AWG	4.5±0.5

See “Figure 1” and “Figure 2”:

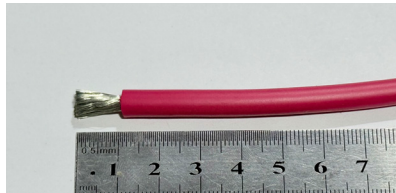


Figure 1

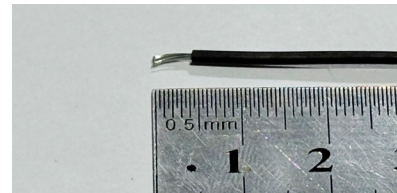
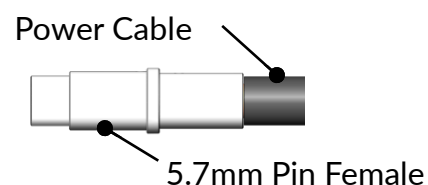
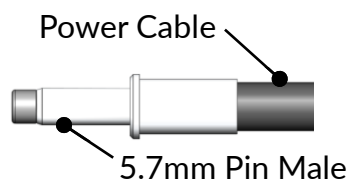


Figure 2

**Step 2:** Insert the cable conductor part into the terminal crimping hole (slot) according to the following specifications and terminal types.

PIN specification Pin	Applicable cable specifications
8AWG & 10SQMM	8AWG & 10mm <sup>2</sup>
6AWG & 16SQMM	6AWG & 16mm <sup>2</sup>
4AWG & 25SQMM	4AWG & 25mm <sup>2</sup>
20#	2022 AWG

Power Pin:





See “Figure 3” and “Figure 4”:

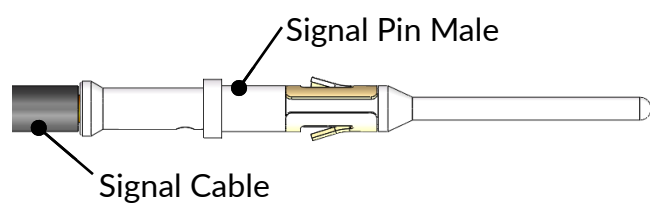
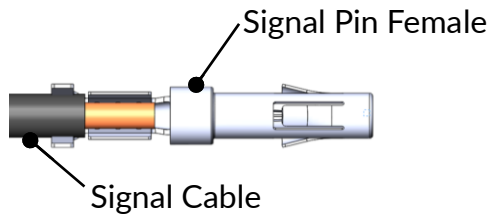


Figure 3



Figure 4

Signal Pin:



See “Figure 5” and “Figure 6”:



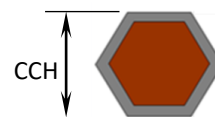
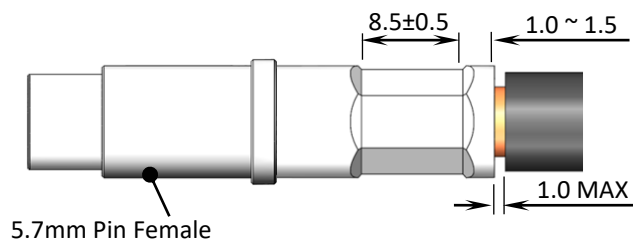
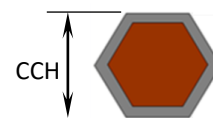
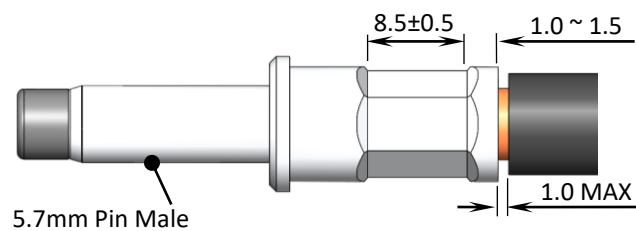
Figure 5



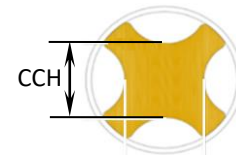
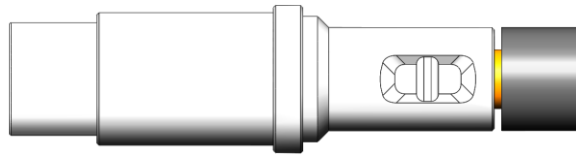
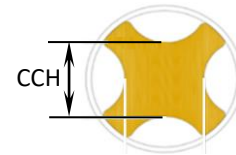
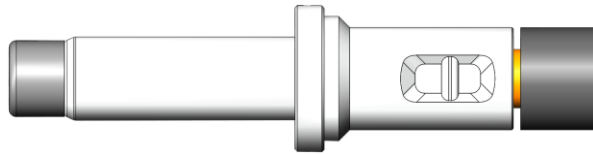
Figure 6

**Step 3:** Crimp the terminal according to the following specifications

Power Pin:



Cable size	Recommended across flats CCH	Cable pullout force
6AWG & 16 mm <sup>2</sup>	6.2±0.1 mm	1500N Min.
4AWG & 25 mm <sup>2</sup>	7.2±0.1 mm	1900N Min.



Cable Size	Recommended Across Flats CCH	Cable Pullout Force
8AWG & 10 mm <sup>2</sup>	6.2±0.05 mm	800N Min.

See "Figure 7" and "Figure 8":

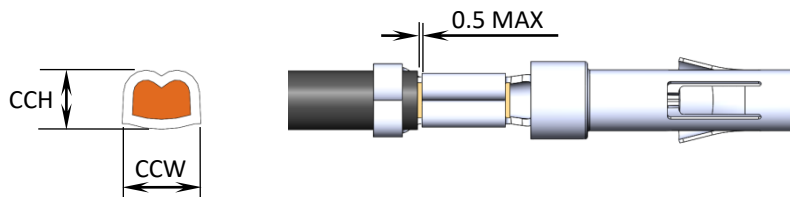


Figure 7

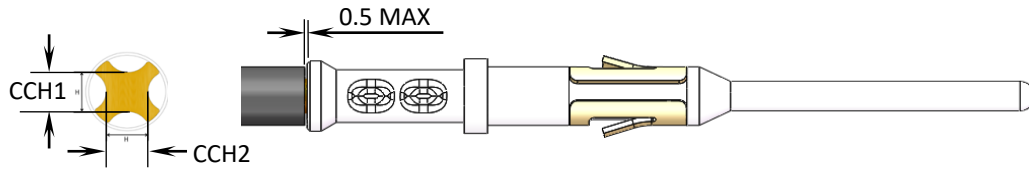


Figure 8

Signal Pin:



Cable Size	Recommended Across Flats CCW	Recommended Across Height CCH	Cable Pullout Force
20 AWG	1.9±0.05 mm	0.95±0.05 mm	90N Min.
22 AWG	1.9±0.05 mm	0.90±0.05 mm	90N Min.



Cable size	Recommended across flats CCW	Recommended across height CCH	Cable pullout force
20 AWG	1.05 +0.00 / -0.05 mm	1.05 +0.00 / -0.05 mm	90N Min.
22 AWG	1.00 +0.00 / -0.05 mm	1.00 +0.00 / -0.05 mm	90N Min.

See "Figure 9" and "Figure 10":



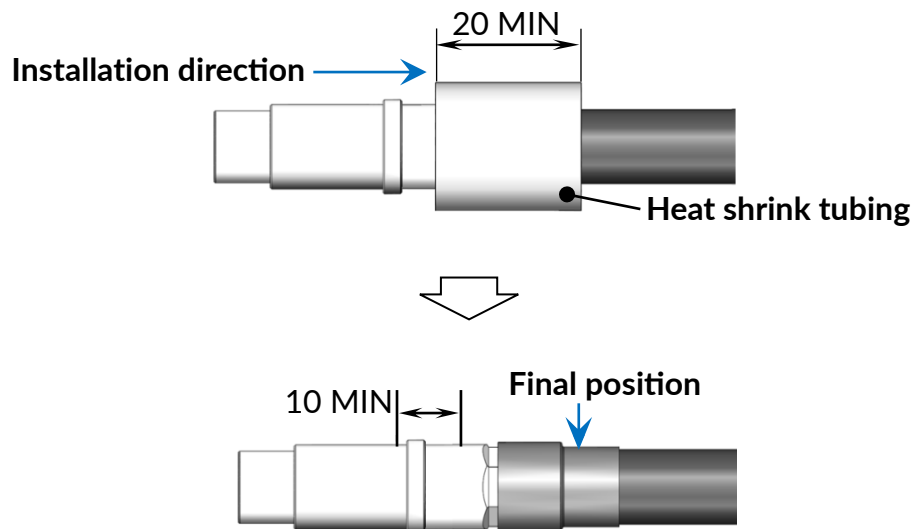
Figure 9



Figure 10

**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 4:** Apply the heat shrink tube onto the cable as shown.



Suggested size of heat-shrinkable tube			
As Supplied		After Recovery	
Inside diameter	Wall thickness	Inside diameter	Wall thickness
$15.0 \pm 0.5$	0.35	$\leq 7.5$	$\leq 0.67$

\*Recommended size is for reference only, guests should select appropriate size of heat-shrinkable tube according to cable O.D. and actual application

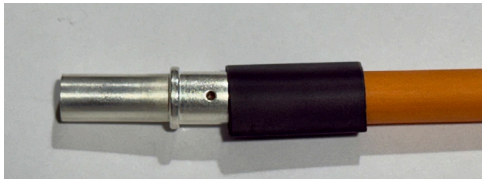


Figure 11

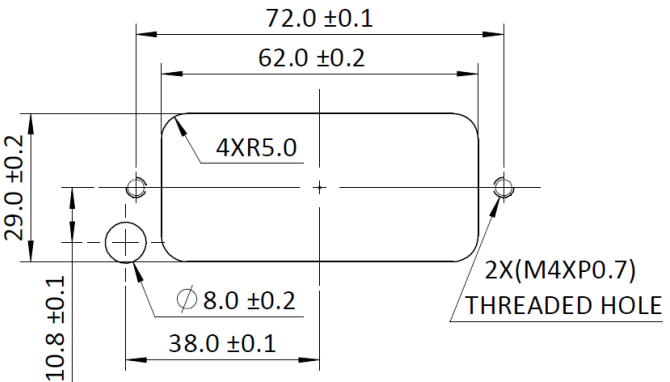
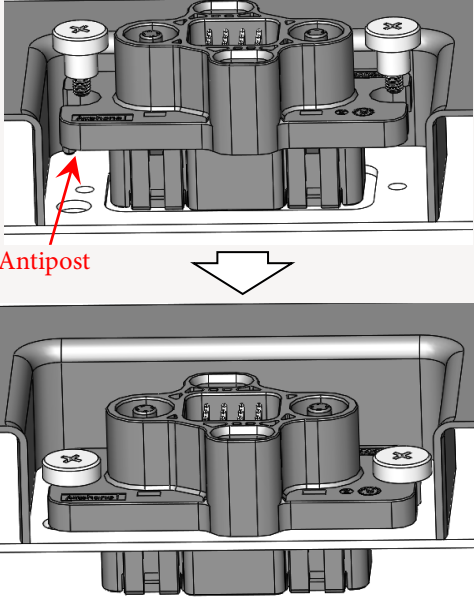
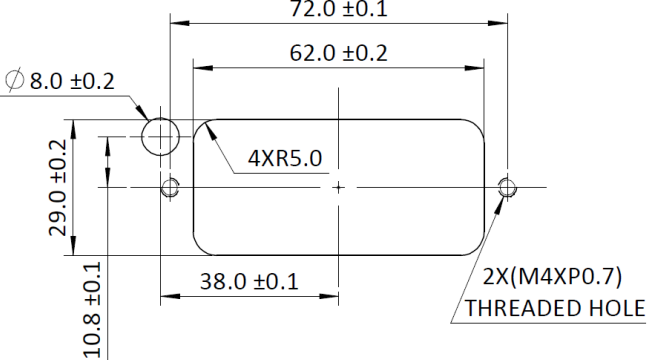
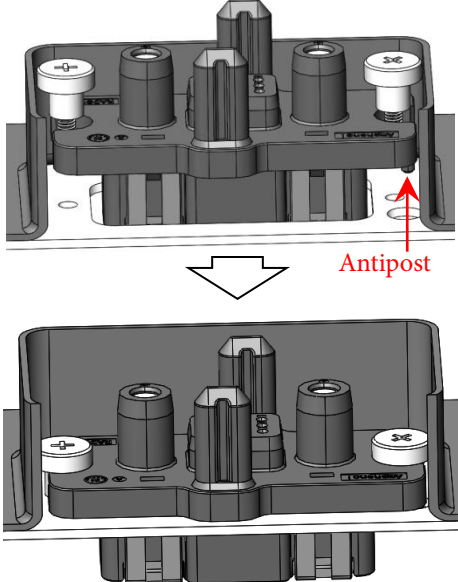


Figure 12

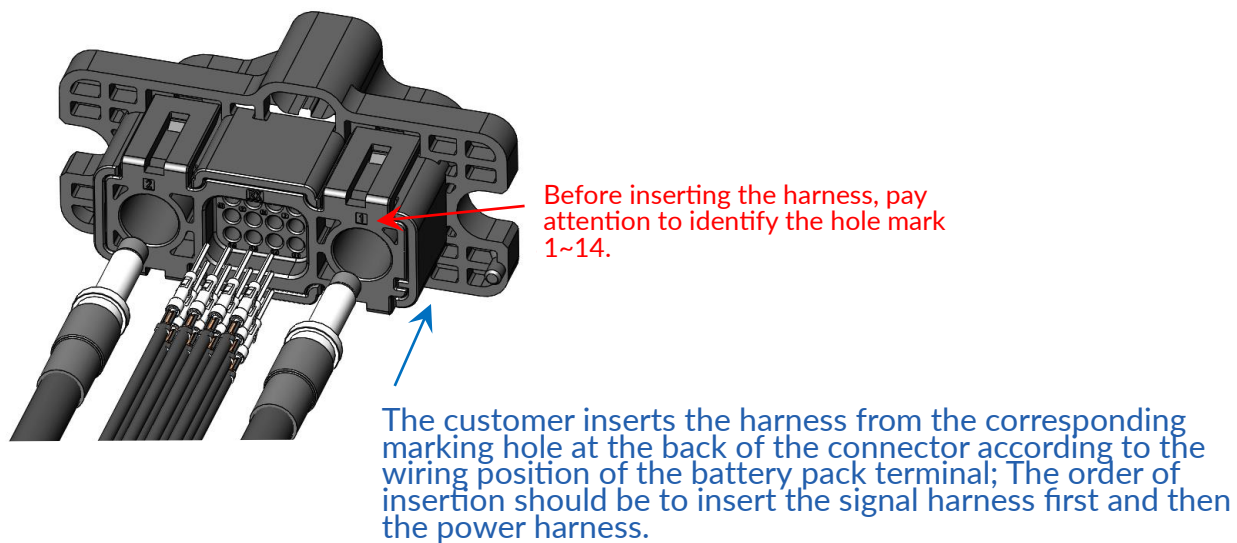
**Notes:** The above only applies to 10mm<sup>2</sup> and 16mm<sup>2</sup> Power terminals and cable.

# Part 3: Installation of Connectors

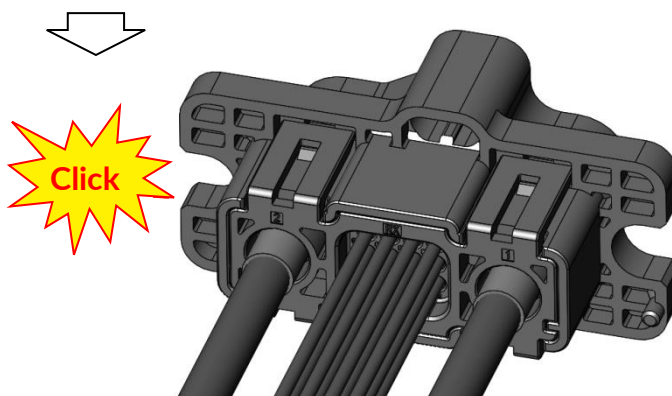
## Installation interface size

Position	Interface dimension drawing	Installation diagram of corresponding view
Plug	 <p>MACHINING DIMENSION OF INSTALLATION INTERFACE (THE ANTI ERROR ORIENTATION CORRESPONDS TO THE MAIN VIEW OF THE PRODUCT)</p>	
Receptacle	 <p>MACHINING DIMENSION OF INSTALLATION INTERFACE (THE ANTI ERROR ORIENTATION CORRESPONDS TO THE MAIN VIEW OF THE PRODUCT)</p>	

**Step 1:** Installation of wiring harness and connector.



There's a "click" after terminals seated into position



See "Figure 13":

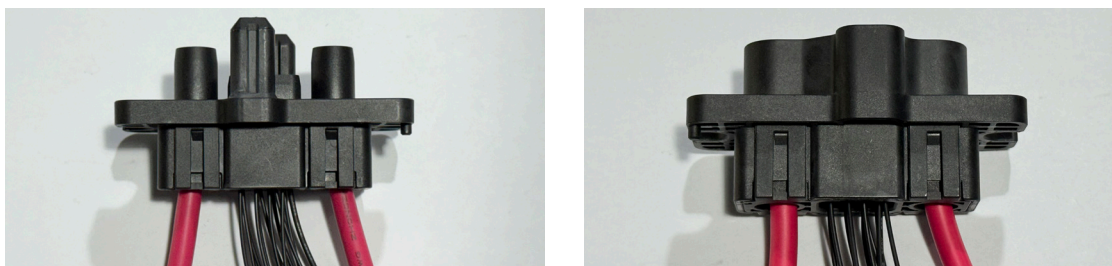
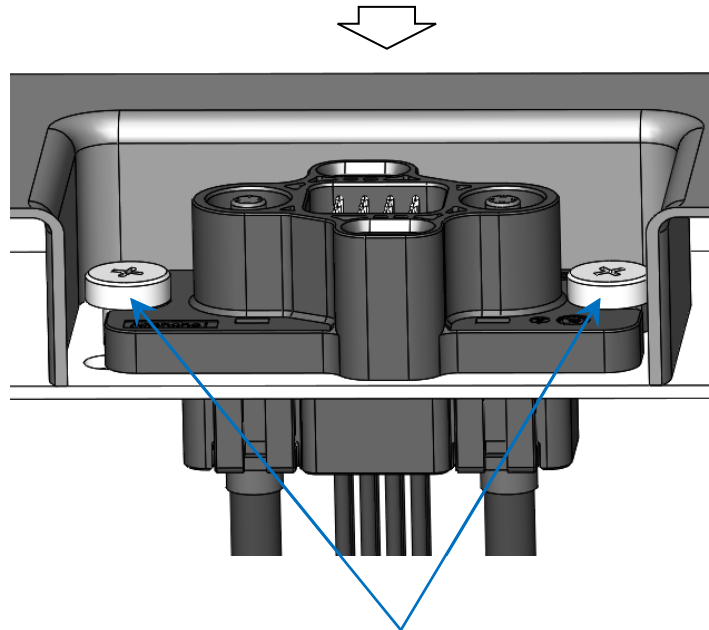
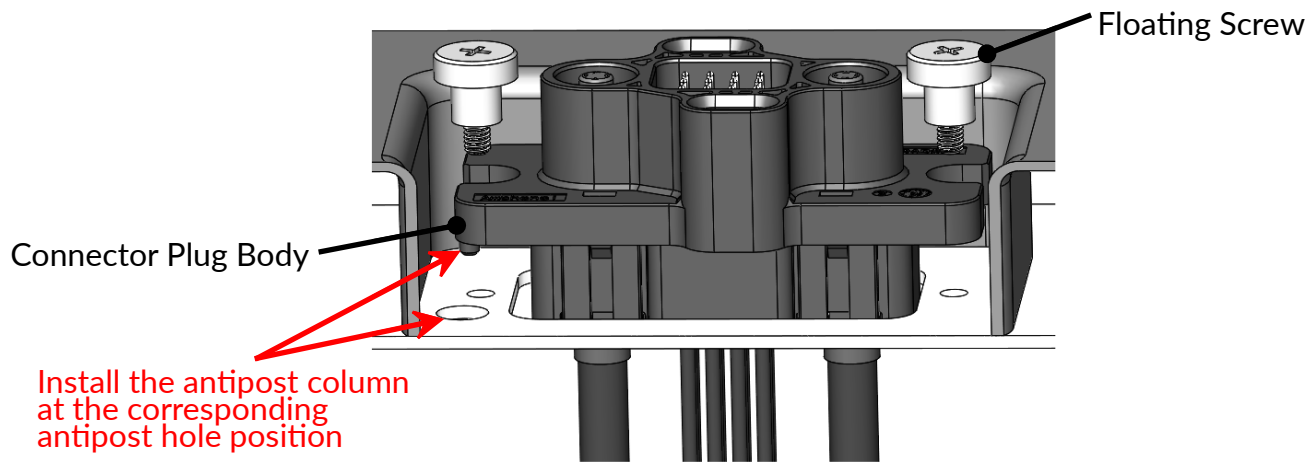


Figure 13

**Step 2:** Assembly of connector panel



**Notes:** The installation method and requirements of connector plug and connector receptacle are the same.

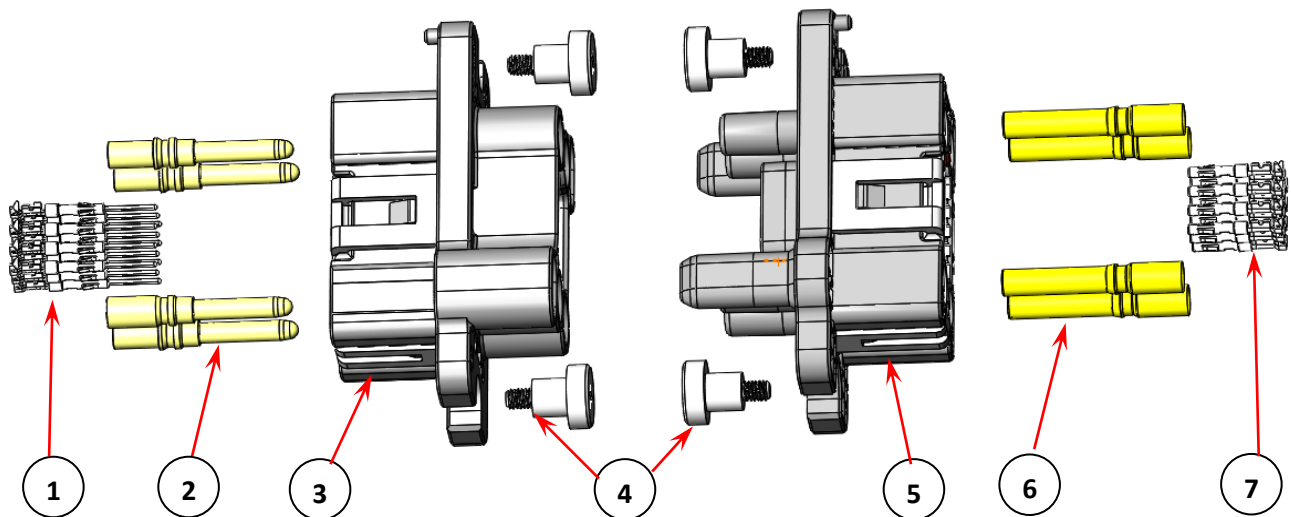
### Revision History

Revision	Date	Notes
A	Mar. 21 <sup>st</sup> , 2023	First release
B	Dec. 23 <sup>rd</sup> , 2023	Add 8AWG Power Pin specification and lathe machining signal Pin











# 4+12 MINI Floating Blind Mate Connector Work Instruction

## Part 1: Package Contents



**Notes:** The picture illustrates final assembly, for storage and shipping the parts are unassembled. The package may not contain all the parts according to the customer order part number.

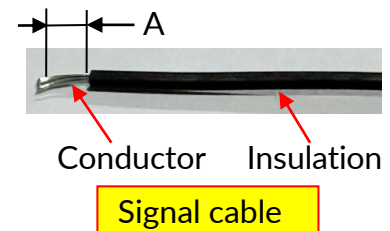
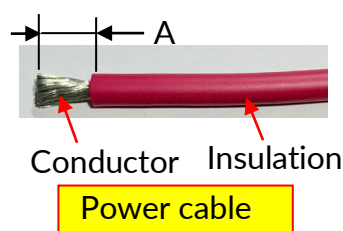
No.	Part name	Part number	Picture	Remarks
①	Signal male Pin	C10738774201		Applicable cable size: 20 AWG (O.D: 2.2mm MAX)
		C10793748201 (Special machined pin)		
②	Power male pin	10SQ. mm: C10792425013		Applicable cable size: 8 AWG or 10SQ. mm (O.D: 6.3mm MAX)
		6SQ. mm: C10792425023		Applicable cable size: 10 AWG or 6 SQ. mm (O.D: 5.5mm MAX)
		4SQ. mm: C10792425033		Applicable cable size: 12 AWG or 4 SQ. mm (O.D: 5.5mm MAX)
③	Plug housing Assy	C107924201000		/
④	Floating screw	C10781688000		Screw spec: M4*P0.7

⑤	Receptacle Housing Assembly	C10-792421-1000		/
⑥	Power Female Socket	10SQ. mm: C10-792426-013		Applicable cable size: 8 AWG or 10SQ. mm (O.D: 6.3mm MAX)
		6SQ. mm: C10-792426-023		Applicable cable size: 10 AWG or 6 SQ. mm (O.D: 5.5mm MAX)
		4SQ. mm: C10-792-426-033		Applicable cable size: 12 AWG or 4 SQ. mm (O.D: 5.5mm MAX)
⑦	Signal Female Socket	C107924201000		Applicable cable size: 20AWG (O.D: 2.2mm MAX)

## Part 2: Terminal Crimping

**Step 1:** Cable cutting and stripping. The recommended cable OD is according to table 1.

Table 1: Cable cutting size		
Cable Type	Cable Specification	DIM A
Power Cable	8 AWG or 10SQ. mm	7.5±0.5mm
	10 AWG or 6 SQ. mm	7.5±0.5mm
	12 AWG or 4 SQ. mm	7.5±0.5mm
Signal Cable	20 AWG	4.0±0.5mm

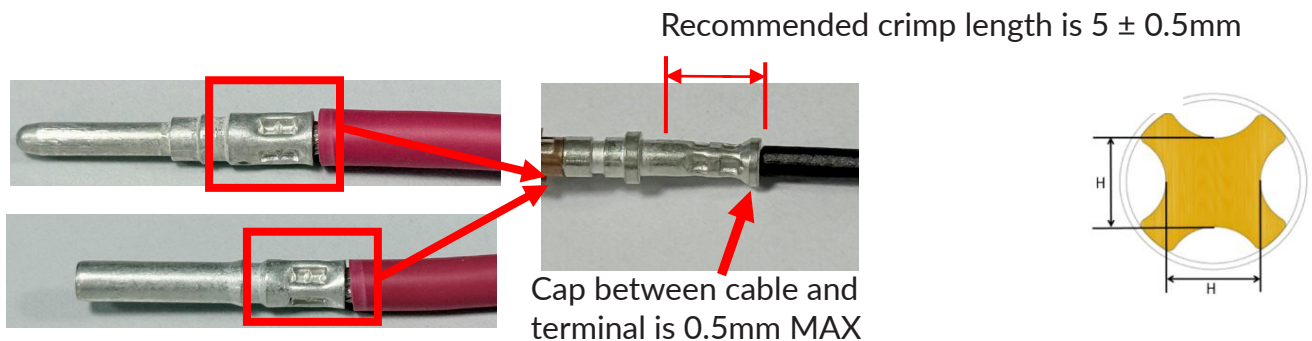


**Step 2:** Insert the cable conductor part into the corresponding terminal crimping hole (slot) according to the table 1.



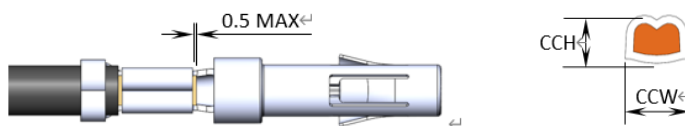
**Step 3:** Crimp the terminal according to the following specifications

- For power male pin (P/N is C10792425XXX) and power female socket (P/N is C10792426XXX), the crimping type and crimping size are the same.

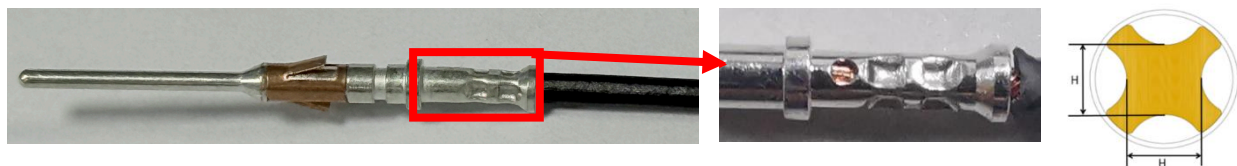


Cable size	Cable Range	Recommended dist across flats H	Cable Pullout Force	T-Rise
8 AWG or 10SQ. mm	6.3mm MAX	3.05+/-0.1 mm	500N Min.	<45 °C @ 65A
10 AWG or 6 SQ. mm	5.5mm MAX	2.55+/-0.08 mm	450N Min.	<45 °C @ 50A
12 AWG or 4 SQ. mm	5.5mm MAX	2.35+/-0.08 mm	310N Min.	<45 °C @ 40A

- For signal male pin (P/N is C10738774201) and signal female socket (P/N is C10780111201), the crimping type and crimping size are the same. Below is the signal female socket(C10780111201) crimping description as an example.



Cable size	Cable range	Recommended dist across flats CCW and height CCH	Cable pullout force	T-rise
20 AWG	2.2mm MAX	CCW : $1.9 \pm 0.05$ mm CCH : $0.95 \pm 0.05$ mm	75N Min.	$\leq 45$ °C @ 3A



Cable size	Cable range	Recommended dist across flats CCW and height CCH	Cable pullout force	T-rise
20 AWG	2.2mm MAX	$1.05 \pm 0.05$ mm	75N Min.	$\leq 45$ °C @ 3A

**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 4:** Apply a heat shrink tube onto the power cable only. It is the similar for power male pin and power female socket, show as below.

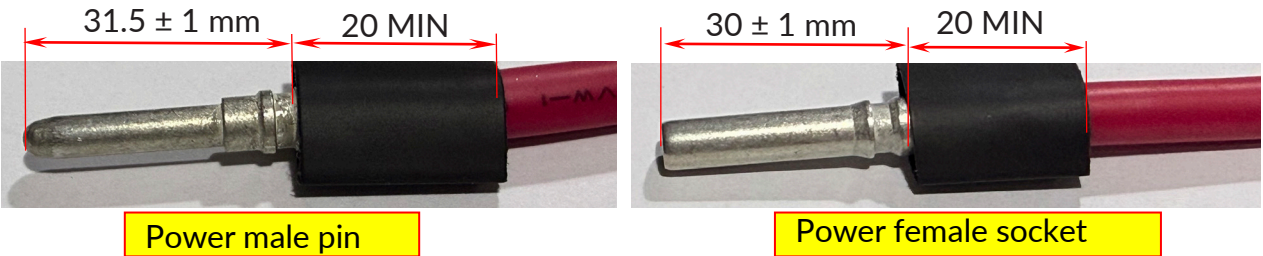


Table 2: Recommended size of heatshrinkable tube:			
As supplied (mm)		After recovery (mm)	
Inside diameter	Wall thickness	Inside diameter	Wall thickness
7.5 + 0.3/0.1	0.15 ± 0.05	≤3.5	0.32 ± 0.06

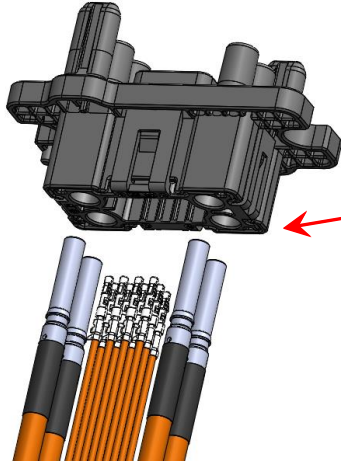
- Notes:** 1. Recommended size is for reference only, guests should select appropriate size of heatshrinkable tube according to cable O.D and actual application.
2. The above only applies to 6 SQ. mm (10 AWG) or 4 SQ. mm (12 AWG) power terminals and cable.

# Part 3: Installation of Connectors

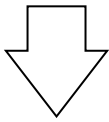
Installation interface size

Position	Interface dimension drawing	Installation diagram of corresponding view
Plug		
Receptacle		

**Step 1:** Installation of wiring harness and connector. The installation method and requirements of plug is the same as receptacle. Below is the Receptacle installation method description as an example.

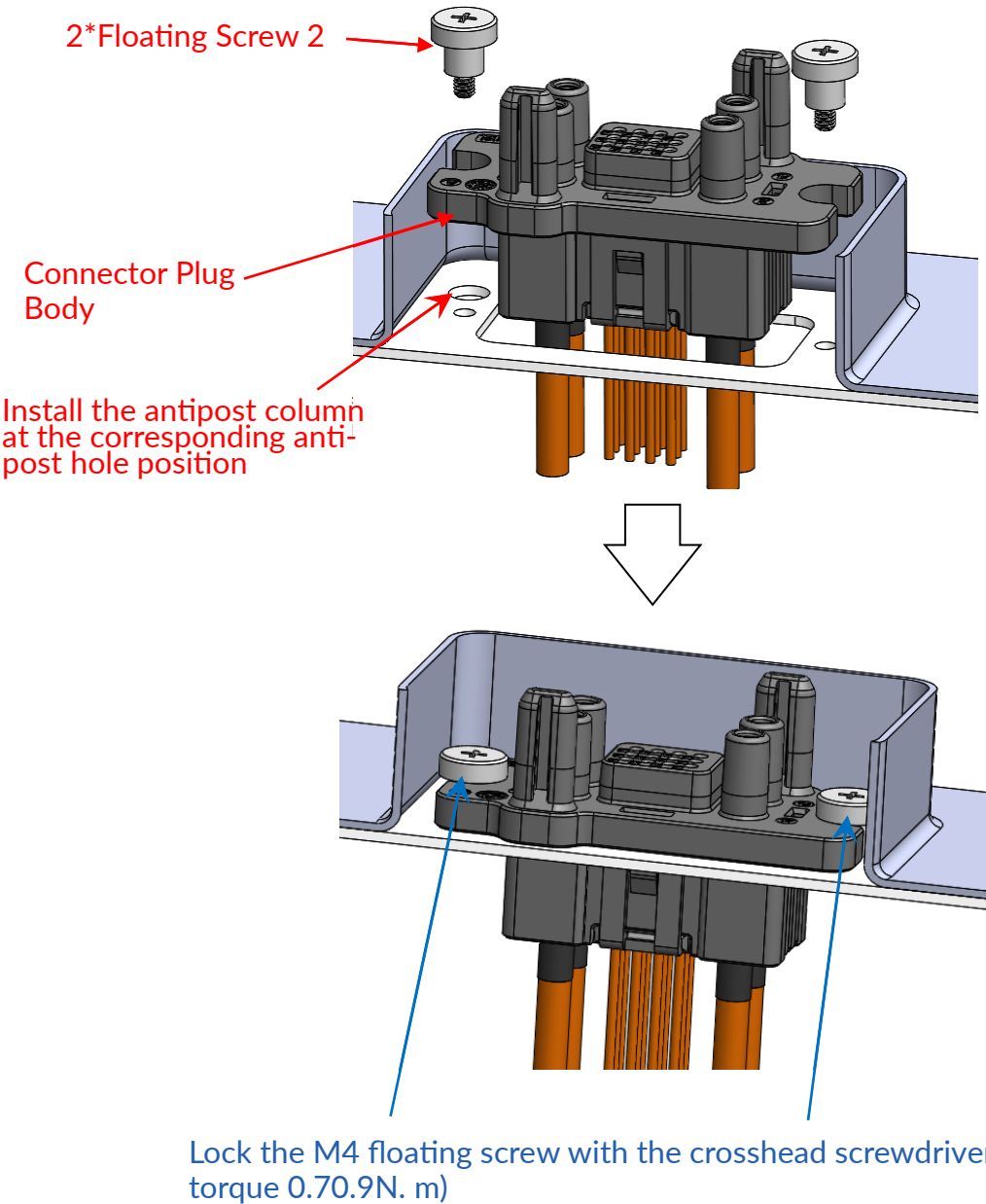


1. Before inserting the harness, pay attention to identify the signal hole mark 1~16 and power hole 1~4
2. The customer inserts the harness from the corresponding marking hole at the back of the connector according to the wiring position of the battery pack terminal; The order of insertion should be to insert the signal harness first and then the power harness.



**Click** There's a "click" after terminals seated into position

**Step 2:** Assembly of connector panel. The installation method and requirements of plug is the same as receptacle. Below is the Receptacle installation method description as an example.






**Revision History**

Revision	Date	Notes
A	May 20th , 2024	First release



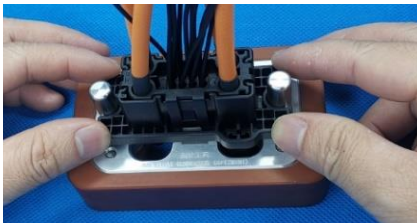
# 4+12 MINI Floating Blind Mate Connector Disassembly Work Instruction

## Part 1: Disassembly special tool introduction

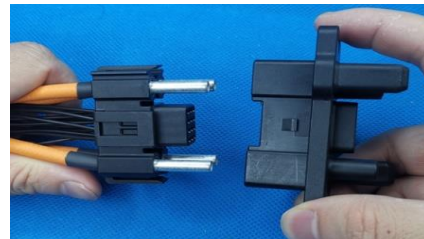
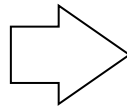
Serial number	Tool name	Tool Number	Picture	Notes
1	Back cap unassembly tool	FX30200001		Tools for removing back cap from connector housing.
2	20 # PIN unassembly tool 20#	TOOL738651020		Tool for remove signal terminal from connector back cap.
3	Reverse tweezers	/		Tool for removing claw ring from power terminal.

## Part 2: Disassembly methods and steps

### Step 1: Removing back cap from connector housing



Put the connector on the back cap unassembly tool and then press the four corners of the connector by hands as show. When you hear a "click" sound, that is, the back cap is unlocked from housing successfully.



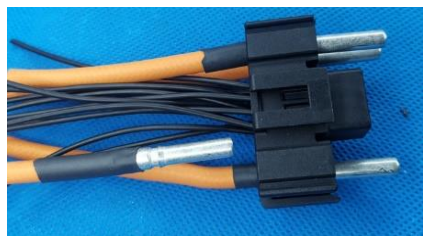
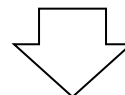
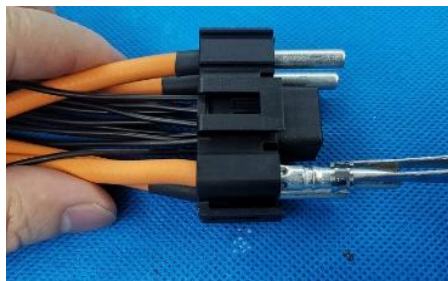
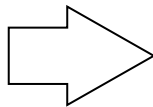
After the back cap is unlocked, hold the harness and pull out the back cap from the housing.



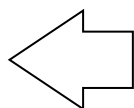
**Step 2:** Removing power pin from back cap.



Push the cable until the claw ring separate from the back cap as shown.

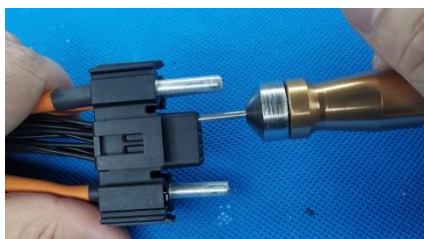


Take out the power cable from back cap as shown.

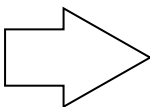


Tack out the law ring from power terminal by reverse tweezers as show.

**Step 3:** Removing signal pin from back cap.



Tack out the signal pin from back cap by 20 # PIN unassembly tool as shown.



**Notes:** The removal method of connector plug and receptacle is the same.