

Amphenol PCD

Engineering Change Request		ECR Number	R10368W
Initiator:	Flame.Li	Date:	2026.06.04

Part number description

Item	K3 Code material part numbers	Drawing/ Doc Number	Version of current related document	New Version
	Due to the large number of part numbers involved, please refer to the attached part number table.			

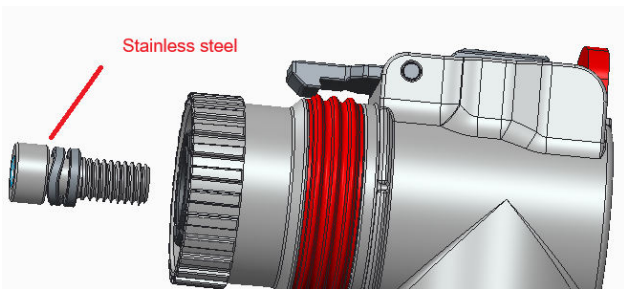
Reason of change:

- Customer requirement (list the feasibility analysis of customer specification:)
- Supplier request (list the PCR number:)
- internal improvement corrective other

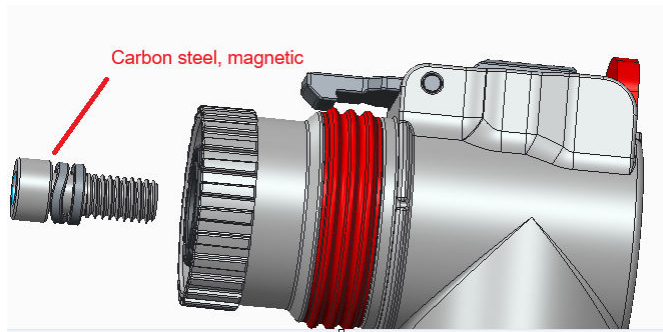
Please describe here in detail:

The CHD10081 accessory (P01BN00628 screw) has been upgraded from stainless steel to carbon steel to improve production efficiency and accommodate a magnetic locking process.

NOW



After improvement



Amphenol PCD



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Change level and impact assessment (Please tick in the appropriate position)

Change level	Change content	Whether to notify the customer
Level 1	<input type="checkbox"/> Operator change	<input type="checkbox"/> It is not necessary to notify the customer for approval
	<input type="checkbox"/> Correct the clerical errors of the drawing, BOM, etc., and this change will not affect the production process	
Level 2	<input type="checkbox"/> Change of Main production equipment or tools/Jigs	<input checked="" type="checkbox"/> Customers should be notified for approval <input type="checkbox"/> It is not necessary to notify the customer for approval, the reasons are as follows: <u>Note: Improve the electrical properties of products without affecting the use of existing products.</u>
	<input type="checkbox"/> Change of main measuring equipment or tools/Jigs	
	<input type="checkbox"/> Appearance changes that do not affect product functions	
	<input type="checkbox"/> Changes in production process or processing technology	
	<input type="checkbox"/> Product structure or specification changes that have not been transferred to mass production	
	<input checked="" type="checkbox"/> Product structure or specification changes that have been transferred to mass production	
	<input type="checkbox"/> Supplier's production process change or supplier's production site change or addition or replacement of suppliers	
Level 3	<input type="checkbox"/> Change of production site	<input type="checkbox"/> Customers should be notified for approval
	<input type="checkbox"/> Product material changes	
	<input type="checkbox"/> Change of packaging method	
	<input type="checkbox"/> Changes proposed by the customer	

Before change	After change
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Disposition of old materials <input type="checkbox"/> Rework <input checked="" type="checkbox"/> Use as it is <input type="checkbox"/> scrap <input type="checkbox"/> Other (please describe): _____ <input type="checkbox"/> N/A	Plan or require material time switching <u>Jul-03-2026</u>
--	---

Approval by the supervisor of requester.: 	Approval by the head manager of the request dept.: 
--	---

Amphenol PCD

Customer approval:

Approved

No approved

Conditional approval (please describe) :

Signature:

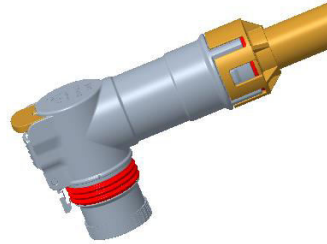
Date:

Remark:

CHD10061X1XX, CHD10081X1XX ASSEMBLY INSTRUCTION



CHD10061X1XX



CHD10081X1XX

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1. SCOPE

1.1. PLUG

1.1.1. Content:

If no special requirements:

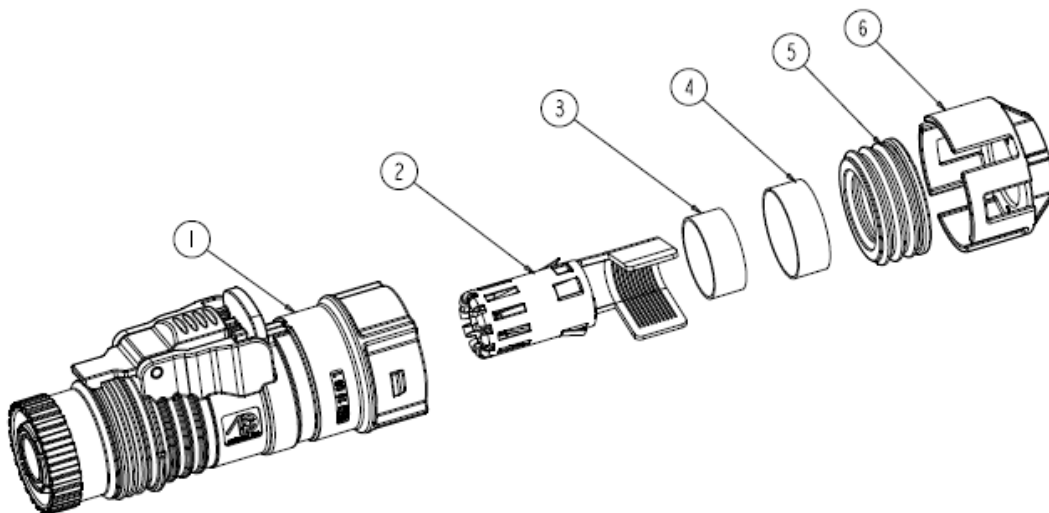
The cross-sectional acceptance criteria are in accordance with item USCAR 21-4-2020. 85% to 80% compression ratio of the section is a good place to start until there is no gap.

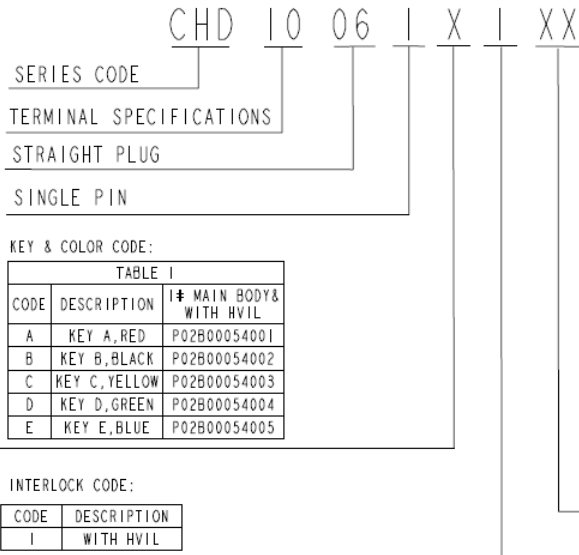
Retention force : 2.5mm² Above (inclusive) The tensile force meets the requirements of VW80304 (6.2.11) , 2.5mm² below The tensile force meets the requirements of VW80302 (9.1.4 table 12)

Crimp resistance: The Crimp resistance meets the requirements of VW80304 (5.3.1.2 table 3) Crimp resistance not mentioned in the standard shall be defined by both parties through negotiation

2. COMPONENTS

2.1. CHD10061xxxx SERIES





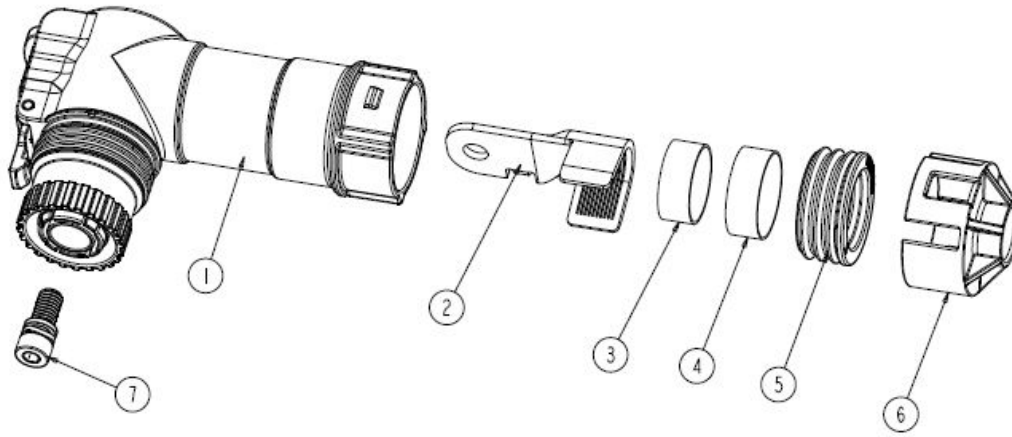
CABLE SIZE OPTION:

CODE	DESCRIPTION	3# INNER SHIELD RING	4# OUTER SHIELD RING	5# CABLE SEALING	6# END CAP
01	70mm ² (LV216) WIRE OD=17.8±0.4mm	P01BM00641	P01BM00640	P01BR00704	P01BP0092301
02	50mm ² (LV216) WIRE OD=15.5±0.3mm	P01BM00614	P01BM00613	P01BR00705	P01BP0092302
03	70mm ² (H&S) WIRE OD=17.8±0.3mm	P01BM02131	P01BM02132	P01BR00706	P01BP0092303
04	50mm ² (H&S) WIRE OD=14.9±0.3mm	P01BM02133	P01BM02134	P01BR01029	P01BP0092304
05	35mm ² (H&S) WIRE OD=12.7±0.3mm	P01BM02135	P01BM02136	P01BR01030	P01BP0092305

MATERIAL LISTS OF CHD10061X1XX

6	SEE TABLE 2	END CAP	
5	SEE TABLE 2	CABLE SEALING	
4	SEE TABLE 2	OUTER SHIELD RING	
3	SEE TABLE 2	INNER SHIELD RING	
2	P01BS0037102	50~35MM ² POWER PIN(PURCHASE SEPARATELY)	
	P01BS0037101	70MM ² POWER PIN(PURCHASE SEPARATELY)	
1	SEE TABLE 1	MAIN BODY	
ITEM	COMPONENT P/N	DESCRIPTION	Q'TY

2.2. CHD10081xxxx SERIES



CHD 10 08 1 X 1 XX

SERIES CODE

TERMINAL SPECIFICATIONS

STRAIGHT PLUG

SINGLE PIN

KEY & COLOR CODE:

TABLE 1		
CODE	DESCRIPTION	1# MAIN BODY & WITH HVIL
A	KEY A, RED	P02B00054201
B	KEY B, BLACK	P02B00054202
C	KEY C, YELLOW	P02B00054203
D	KEY D, GREEN	P02B00054204
E	KEY E, BLUE	P02B00054205

INTERLOCK CODE:

CODE	DESCRIPTION
I	WITH HVIL

CABLE SIZE OPTION:

TABLE 2					
CODE	DESCRIPTION	3# INNER SHIELD RING	4# OUTER SHIELD RING	5# CABLE SEALING	6# END CAP
01	70mm ² (LV216) WIRE OD=17.8±0.4mm	P01BM00641	P01BM00640	P01BR00704	P01BP0092301
02	50mm ² (LV216) WIRE OD=15.5±0.3mm	P01BM00614	P01BM00613	P01BR00705	P01BP0092302
03	70mm ² (H&S) WIRE OD=17.0±0.3mm	P01BM02131	P01BM02132	P01BR00706	P01BP0092303
04	50mm ² (H&S) WIRE OD=14.9±0.3mm	P01BM02133	P01BM02134	P01BR01029	P01BP0092304
05	35mm ² (H&S) WIRE OD=12.7±0.3mm	P01BM02135	P01BM02136	P01BR01030	P01BP0092305

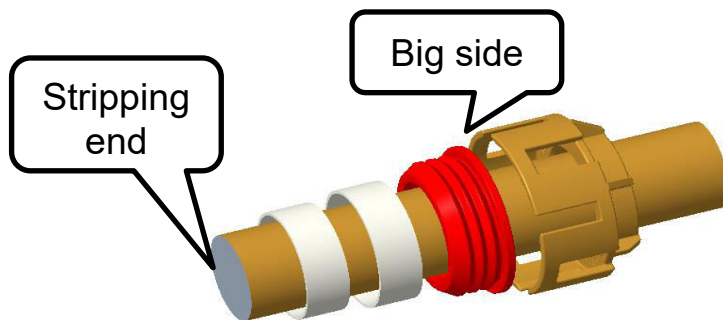
MATERIAL LISTS OF CHD10081X1XX

7	P01BN00628	M6 SCREW	1
6	SEE TABLE 2	END CAP	1
5	SEE TABLE 2	CABLE SEALING	1
4	SEE TABLE 2	OUTER SHIELD RING	1
3	SEE TABLE 2	INNER SHIELD RING	1
2	P01BS0037002	50-35MM ² POWER PIN(PURCHASE SEPARATELY)	1
	P01BS0037001	70MM ² POWER PIN(PURCHASE SEPARATELY)	1
1	SEE TABLE 1	MAIN BODY	1
ITEM	COMPONENT P/N	DESCRIPTION	Q'TY

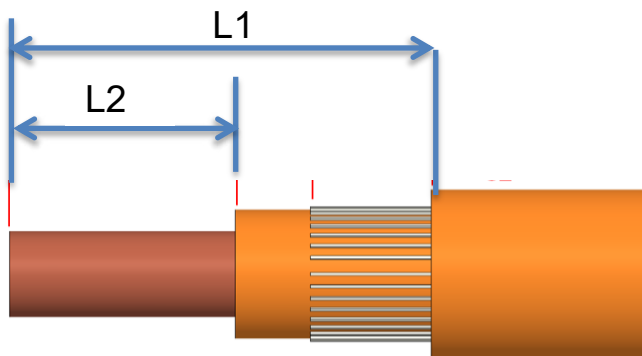
3. ASSEMBLY INSTRUCTIONS FOR CHD10061X1XX

3.1. Insert end cap and cable sealing

Slide the end cap, cable sealing, outer shield ring and inner shield ring on the cable in sequence.

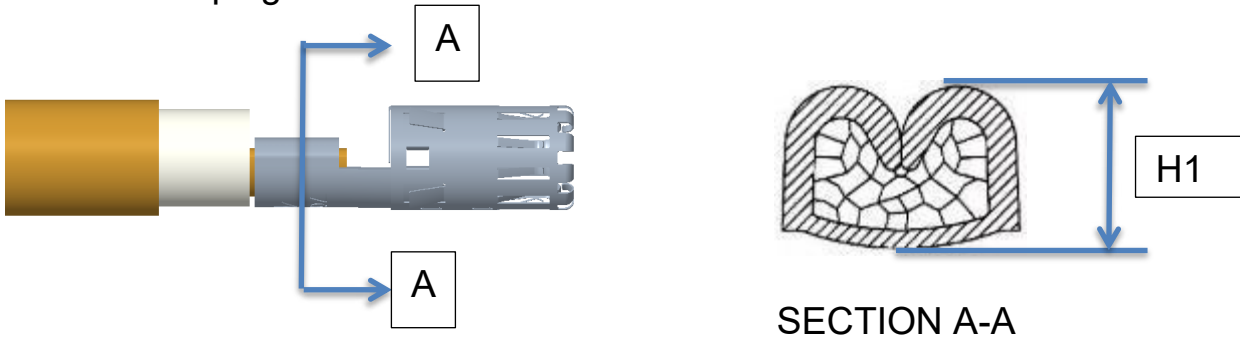


3.2. Stripping jacket



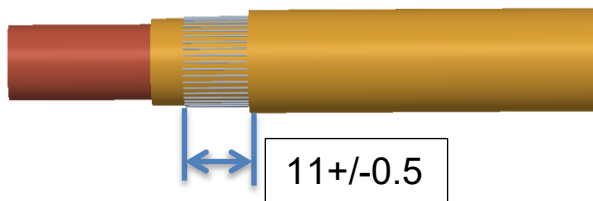
Cable spec.	L1(±0.5mm)	L1(±0.5mm)
35mm ²	14	26
50mm ²	14	26
70mm ²	14	26

3.3. Crimping contact



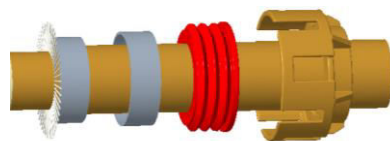
3.4. Crimping shield ring

3.4.1. make the shielding straight and cut the length to 11 ± 0.5 mm.

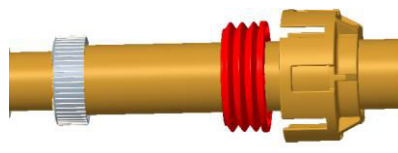


3.4.2. Crimping shielding ring

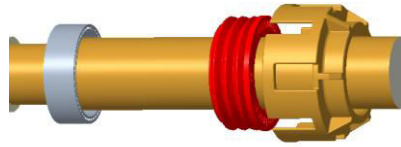
3.4.2.1 Raise shielding equally over perimeter



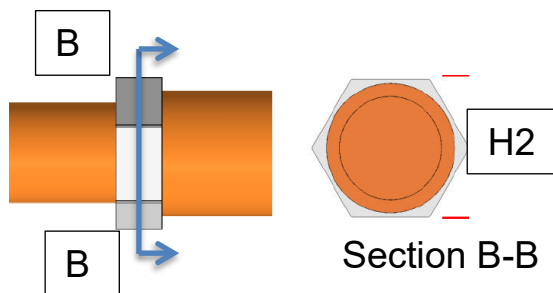
3.4.2.2 Flip the shielding over the inner shielding ring



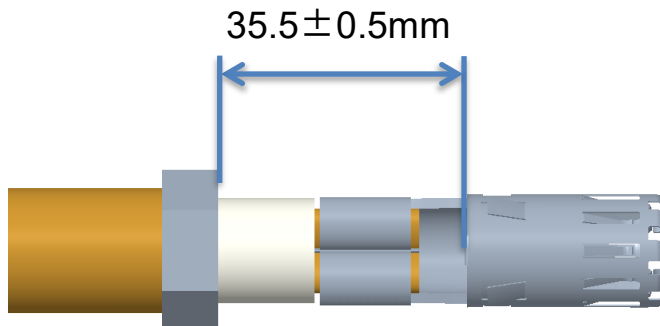
3.4.2.3 Slide the outer shielding ring on the inner shielding ring



3.4.2.4 Crimping the shielding ring

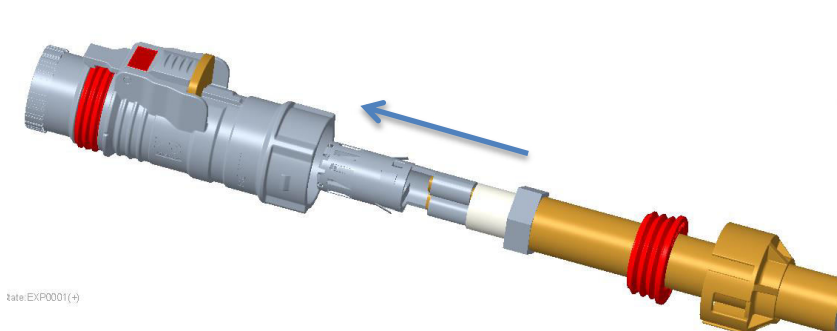


Important: from the step side of the contact to the front side of the outer shielding ring, the distance must be $35.5 \pm 0.5\text{mm}$.



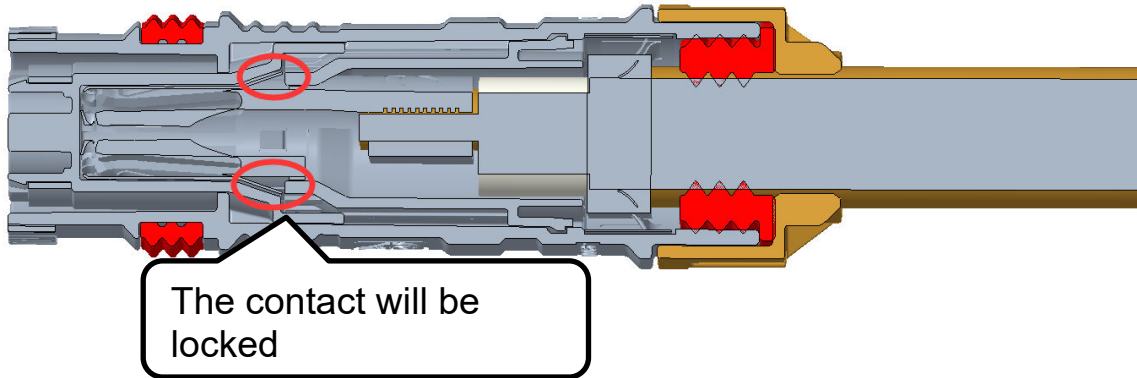
3.5. Assemble main body

3.5.1. Insert contact into the hole of the main body

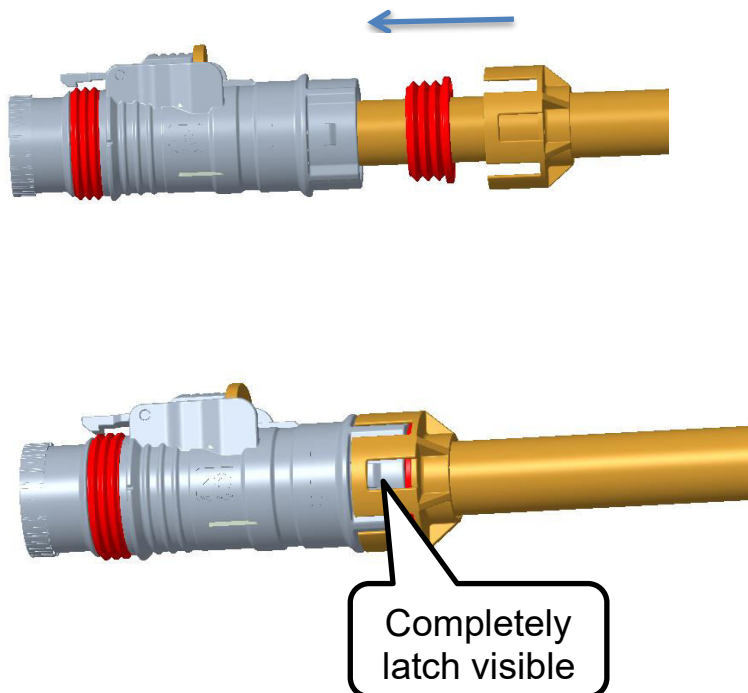


rate:EXP0001(+)

3.5.2. Pull back the cable until the contact cannot be out.

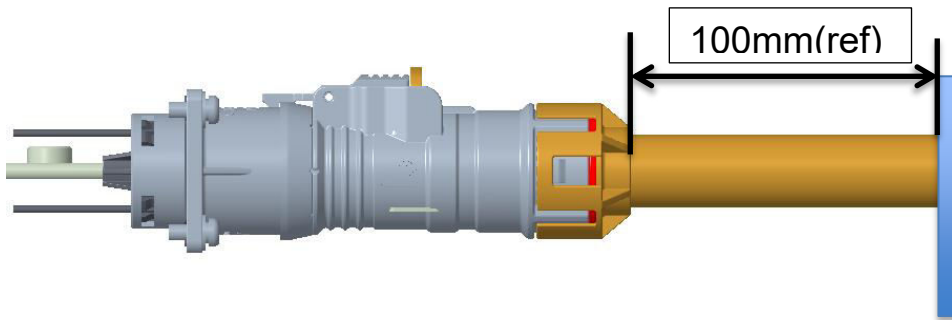


3.5.3. Insert the cable sealing and lock end cap

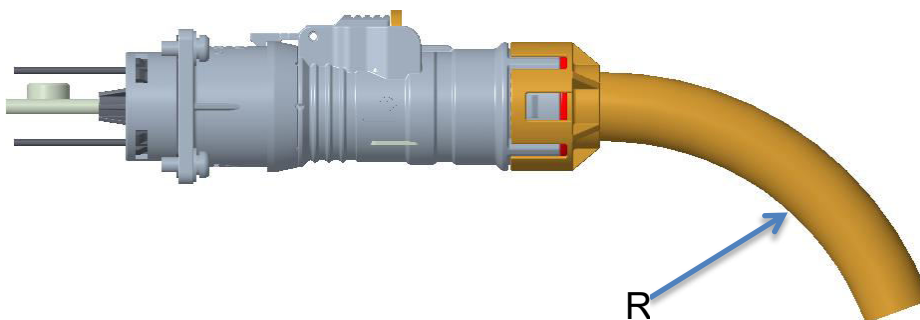


3.5.4. Connect to the socket

3.5.4.1 Recommend the cable to be fixed from the end of the plug about 100mm



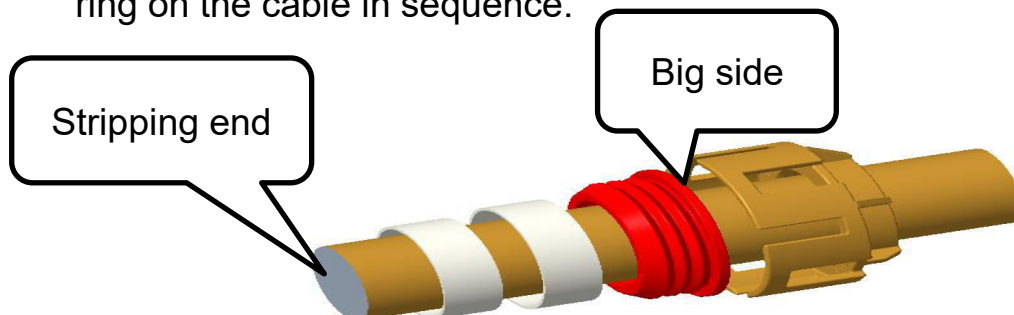
3.5.4.2 The cable bending radius(R) should not be less than 5 times the cable diameter, as shown in the figure below.



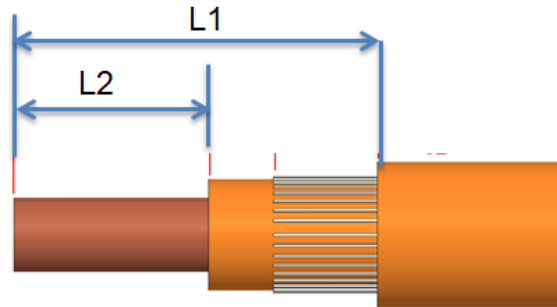
4. ASSEMBLY INSTRUCTIONS FOR CHD10081X1XX

4.1. Insert end cap and cable sealing

4.1.1. Slide the end cap, cable sealing, outer shield ring and inner shield ring on the cable in sequence.

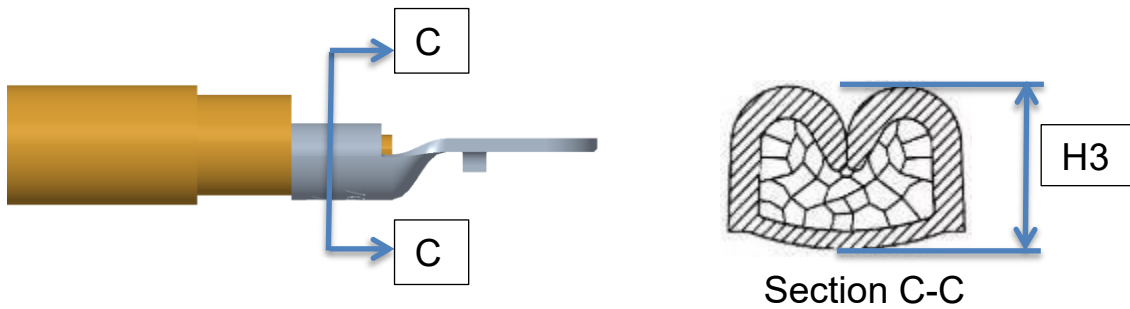


4.2. Stripping jacket



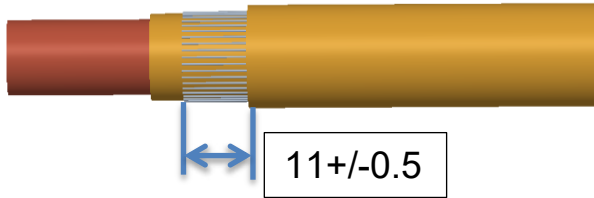
Cable spec.	L1(±0.5mm)	L1(±0.5mm)
35mm ²	14	26
50mm ²	14	26
70mm ²	14	26

4.3. Crimping contact



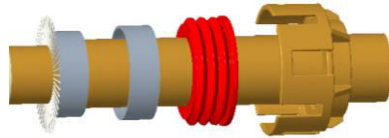
4.4. Crimping shield ring

4.4.1. make the shielding straight and cut the length to $11 \pm 0.5\text{mm}$.

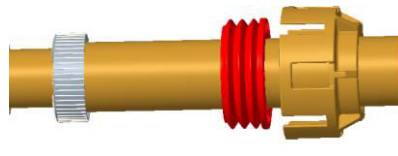


4.4.2. Crimping shielding ring

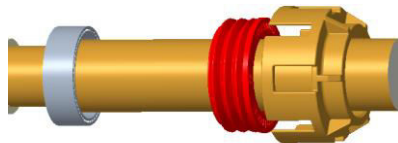
4.4.2.1 Raise shielding equally over perimeter



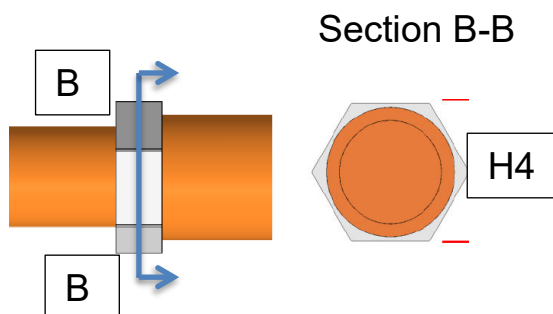
4.4.2.2 Flip the shielding over the inner shielding ring



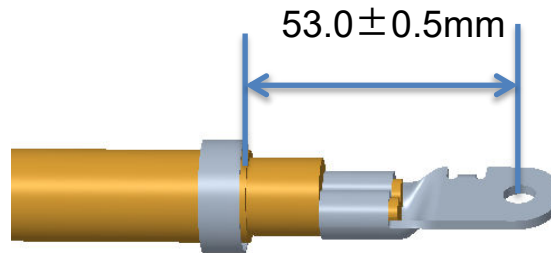
4.4.2.3 Slide the outer shielding ring on the inner shielding ring



4.4.2.4 Crimping the shielding ring

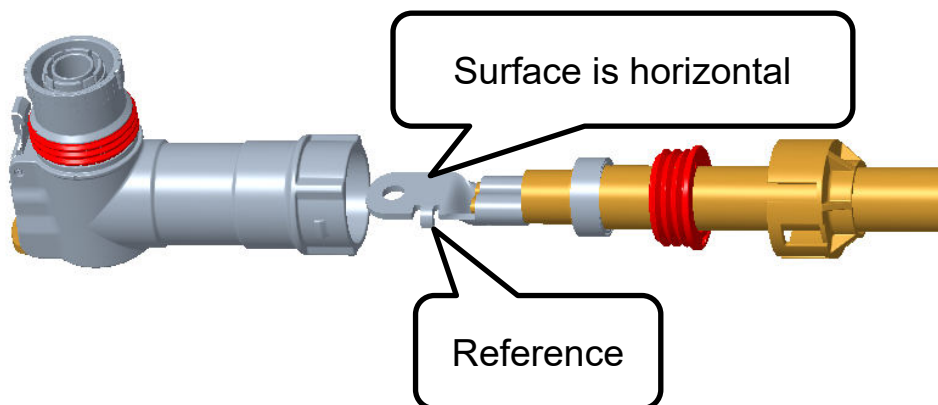


Important: from the step side of the contact to the front side of the outer shielding ring, the distance must be $53.0 \pm 0.5\text{mm}$.



4.5. Assemble main body

4.5.1. Insert contact horizontally into the hole of the main body



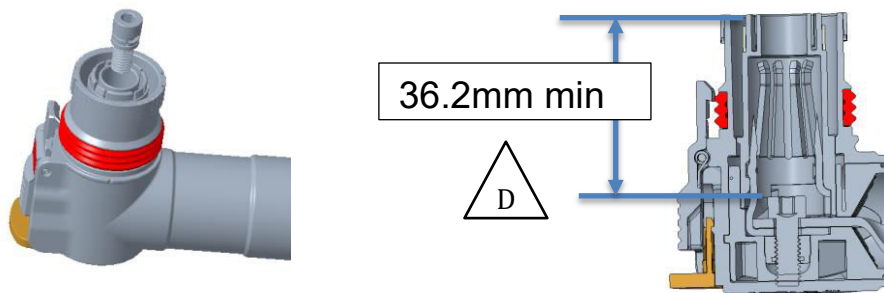
4.5.2. Tighten the screw with wrench.

The first step: Manually pre-tighten the screw until the marking line on the hex wrench is flush with the connector surface

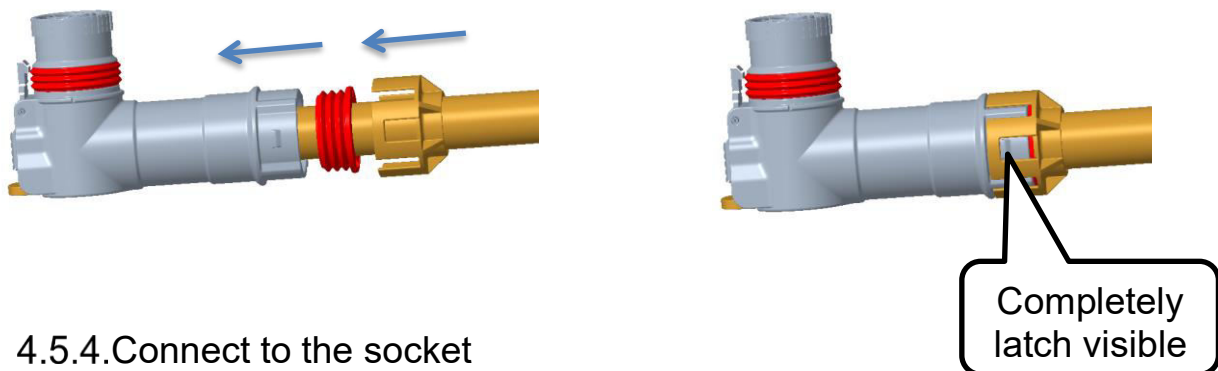




The second step: Tighten the screw with an electric screwdriver at a torque of 5.3+/-6%N.m (reference NFF 61-017) N.m and a rotational speed of 200~400 rpm.
After locking, the height from the nut surface to the top of the connector is more than 36.2mm

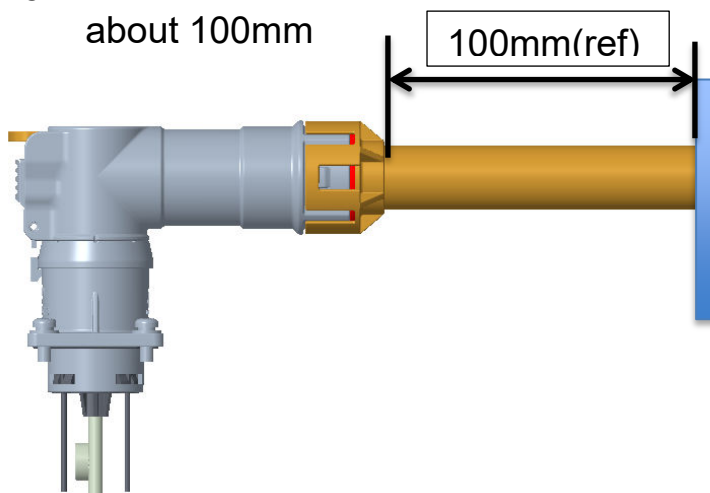


4.5.3. Insert the cable sealing and lock end cap

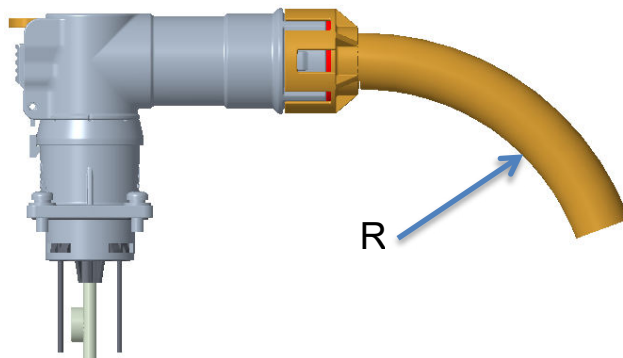


4.5.4. Connect to the socket

4.5.4.1 Recommend the cable to be fixed from the end of the plug about 100mm



4.5.4.2 The cable bending radius(R) should not be less than 5 times the cable diameter, as shown in the figure below.



5. TEST INSTRUCTIONS

5.1. 100% Hi-pot test, insulation test:

AC 4000V, testing time: 60S, leakage current $\leq 5\text{mA}$ (Power contact)

AC 660V, testing time: 60S, leakage current $\leq 5\text{mA}$ (HVIL)


DC 1000V, testing time: 60S, insulation resistance $\geq 200\text{M}\Omega$.







5.2. 100% continuity test

5.3. 100% IP67 waterproof test

6. APPLICATION DEVICES AND TOOLS

Devices and Tools

INDEX	TOOL	FUNCTION	PICTURE	MODEL No.
1	30T Servo-crimping machine	Crimping contacts		HS-SG30T

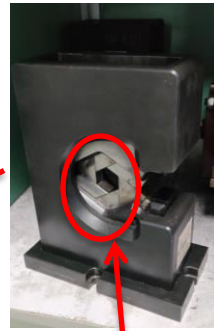
2	Hexagonal applicator(10MM)	Crimping shielding ring		Width 10mm
3	Applicator	Install on the 30T Crimping machine for 70SQ below		HV-Z01
4	Dies	For 35mm ² and 50mm ² contact, install on the applicator		ATD-0245
5	Dies	For 70mm ² contact, install on the applicator		ATD-0246
6	Applicator	Install on the 30T Crimping machine for 95SQ below		HV-Z12
7	Dies	For 95mm ² contact, install on the applicator		ATD-0324



7. 30T SERVO-CRIMPING MACHINE AND APPLICATO



30T Servo-crimping machine



Applicator for shielding ring

Crimping module

Crimping module: The crimping module can be retracted towards the center according to the set value, no need to change the module



Applicator for contacts also can be installed on the machine

Amphenol PCD Shenzhen

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Notes:

Amphenol PCD Shenzhen has made every effort to ensure that the information contained in this assembly instruction is accurate at the time of publication. Specifications or information stated in this publication are subject to change without notice.

Amphenol PCD Shenzhen reserves the right to clarify this assembly instruction.

Revision History

Date	Rev.	Updated Content	Originator	Remark
2024/3/6	A	First issue	Clark	
2024/3/26	B	Add applicator of shielding ring	Clark	C7933
2025/3/16	C	Correct a clerical error: 0.06%N.m to 6% N.m	Clark	C10084
2025/5/21	D	Add the height from the nut surface to the top of the connector	Clark	C10329
2026/6/4	E	Adding Manually pre-tighten the screw	Clark	

Prepared By: Clark Checked by ME:  Checked by QE: Checked by PE: Approved by:
 DATE:2026/05/21 DATE: 2026/05/21 DATE: 2026/05/21 DATE: 2026/05/21 DATE: 2026/05/21

Dear TTI Team,

The CHD10081 accessory (P01BN00628 screw) has been upgraded from stainless steel to carbon steel to improve production efficiency and accommodate a magnetic locking process. Please refer to the attached WI 《APCD-ATD-092》 for the assembly procedure.

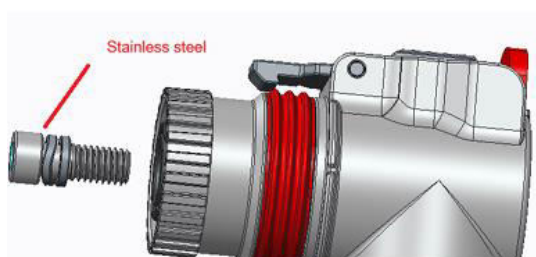
Attached pls find the ECR, pls kindly note and help inform your end customer to sign back within 2 weeks if no problem, no response within 2 weeks will be deemed as consent.
Thank you

Related your PN as attached:

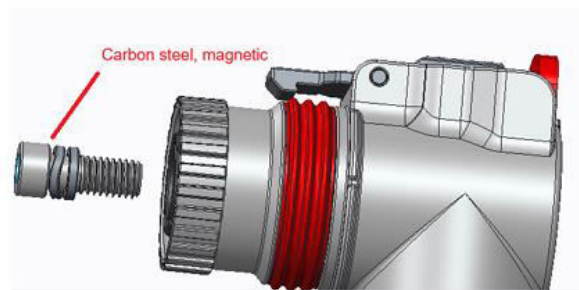
CHD10081A101

CHD10081A102

NOW



After improvemen



Sandy Xia | Amphenol PCD Shenzhen

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