


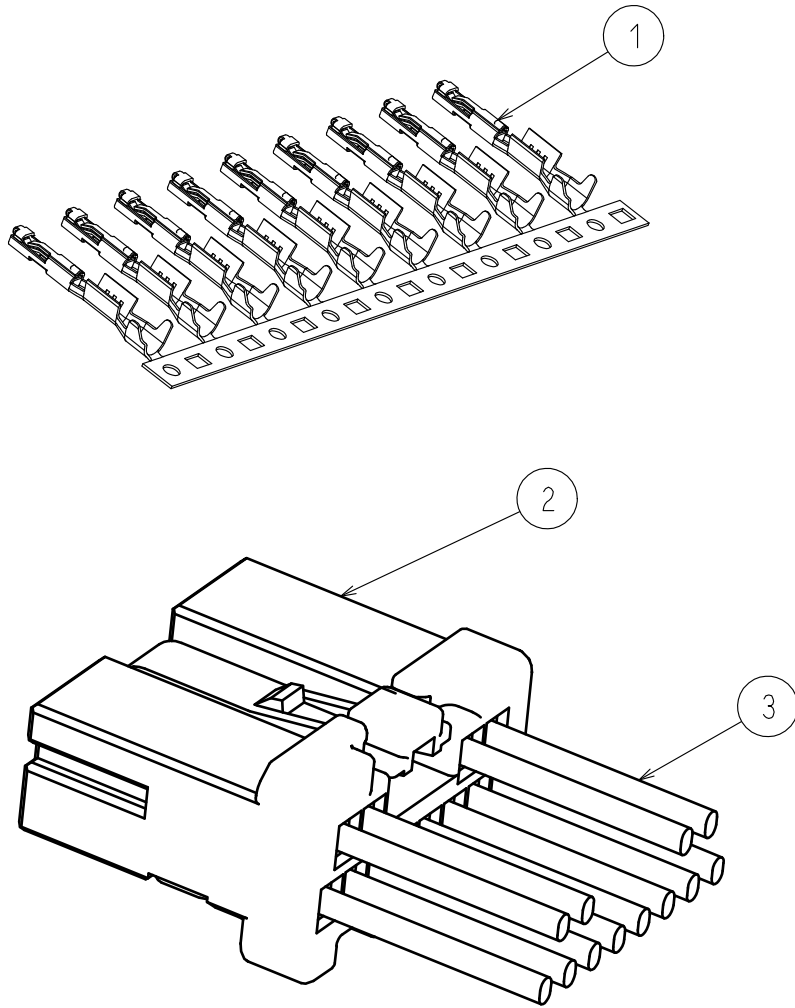


ZE05 SERIES HARNESS OPERATION MANUAL

1. COMPONENTS
2. ASSEMBLY PROCESS
3. REPAIR PROCESS
4. OTHER / NOTES
5. CRIMP QUALITY STANDARD

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
	4	DIS-T-00006879	YH. MAMADA	HH. TSUKUMO	20201019	
名称 TITLE			 ヒロセ電機株式会社 HIROSE ELECTRIC CO., LTD.			
ZE05 SERIES HARNESS OPERATION MANUAL						
APPROVED		HK. UMEHARA				20170713
CHECKED		HK. UMEHARA				20170713
CHARGED		KT. MATSUDA				20170713
WRITTEN		KT. MATSUDA	20170713			
技術指定書 TECHNICAL SPECIFICATION			ETAD-T0649-00		1/8	

1. COMPONENTS



COMPONENT PART SUMMARY

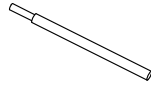
PART	PART DESCRIPTION	HIROSE PART
1	CRIMP TERMINAL	ZE05-2022SC(F)(##)
2	HOUSING	ZE05-*S-HU/R(##)
3	CABLE	-

※ = PIN COUNT, (# #) = SPECIFICATION NUMBER

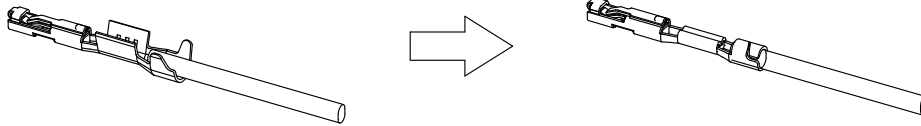
2. ASSEMBLY PROCESS

① Strip the cable

Note: Please refer to the Crimp Quality Standard (p.8) for details on strip length.



② Crimp wire in terminal

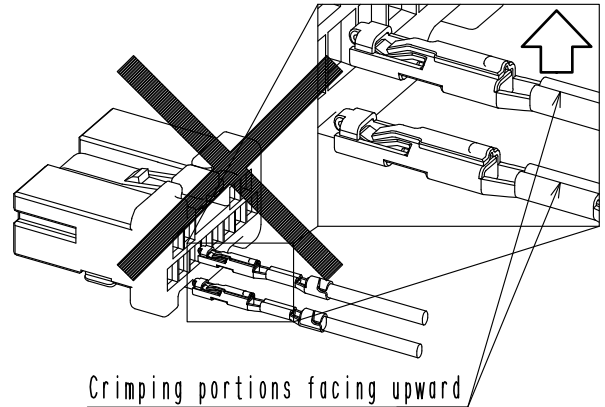
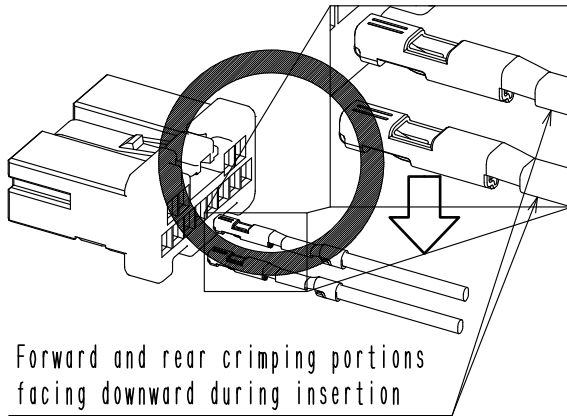


NOTE 1: Please use the Hirose crimp tool.

NOTE 2: Please refer to the Crimp Quality Standard to confirm terminal compatibility and check crimp condition.

③ Insert contact and push until a click is heard.

※ Please take care to ensure that the terminal is inserted in the correct orientation.

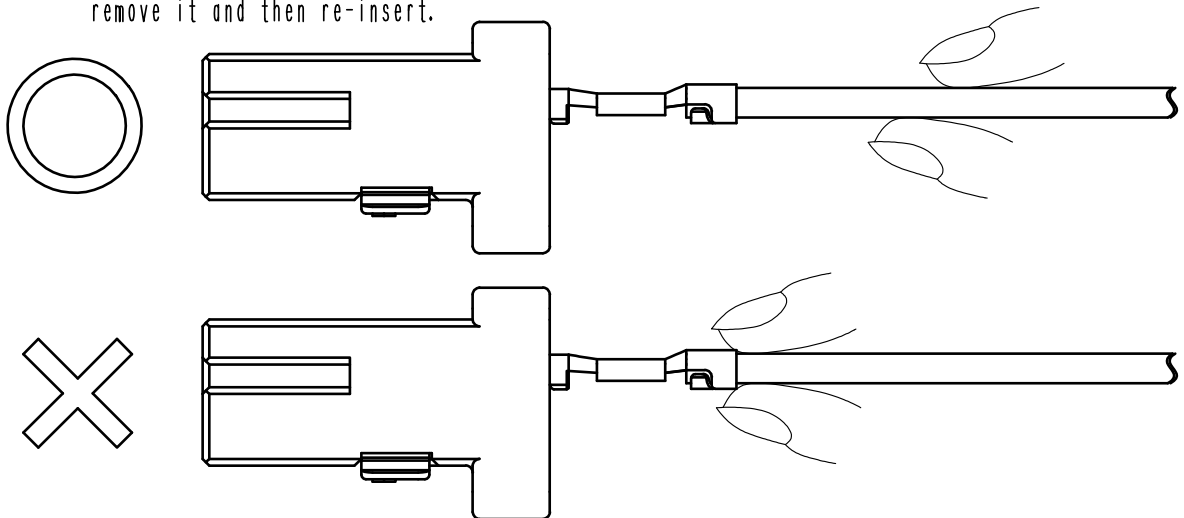


NOTE 1: Holding the cable, please insert straight into the housing.

Do not use more than 10N of force during this process.

※ Even in the incorrect orientation, holding the cable at the crimped terminal and applying a force in excess of 10N can result in insertion.

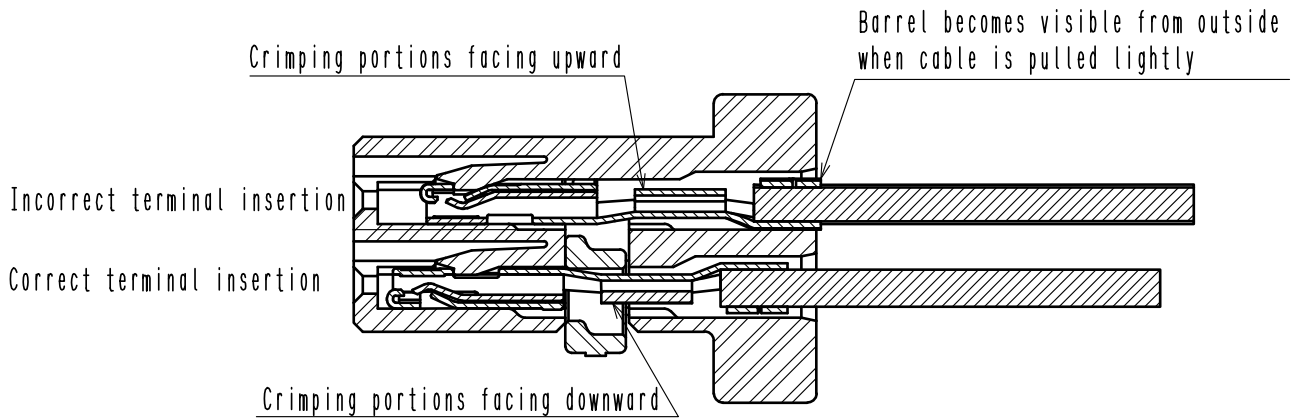
NOTE 2: If the crimped terminal does not enter the housing smoothly the first time, remove it and then re-insert.



⚠ NOTE 3: Do not bend or twist the cable.

Doing so may cause damage or deformation of the female housing and/or terminal.

④ After insertion, confirm that the terminal has been inserted correctly by pulling lightly on the cable.

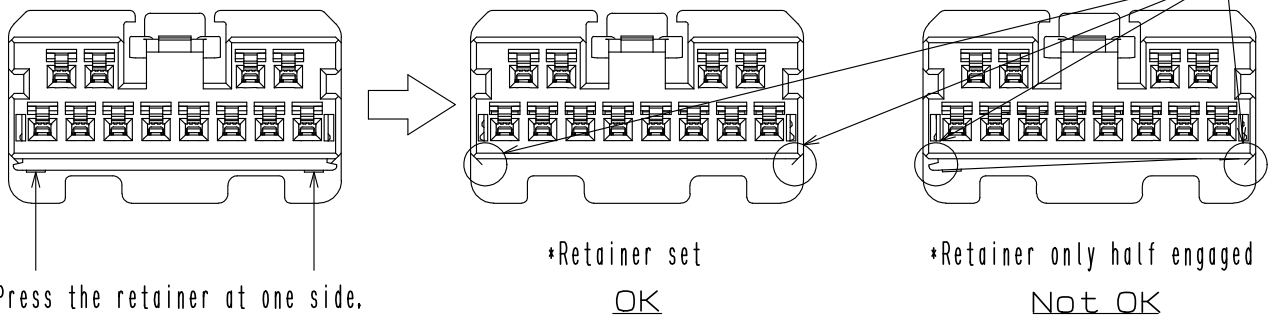


⑤ Press preset retainer until a click is heard.
Please press the retainer at one side, and then the other side to fully push it in.

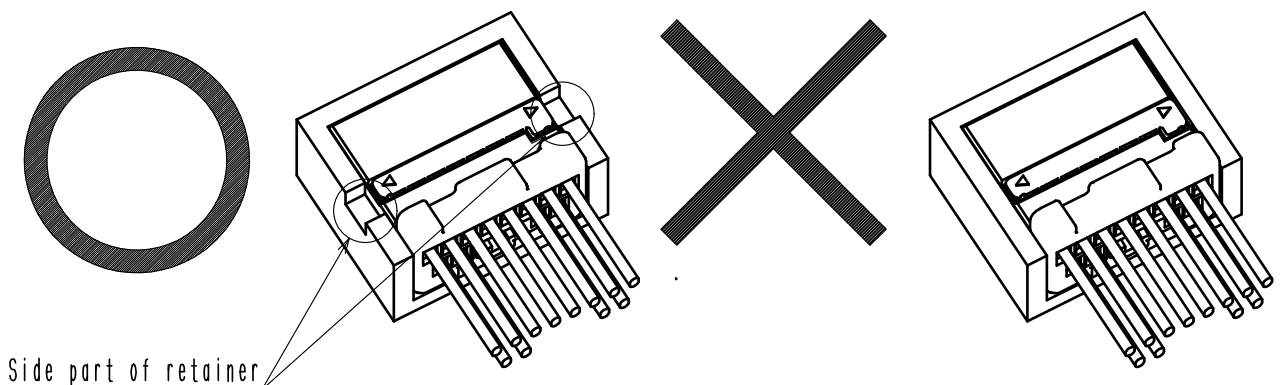
Preset condition
(Configuration at time of delivery)

Set position

After setting the retainer, please inspect the housing head-on to confirm that the retainer is not protruding in any way.



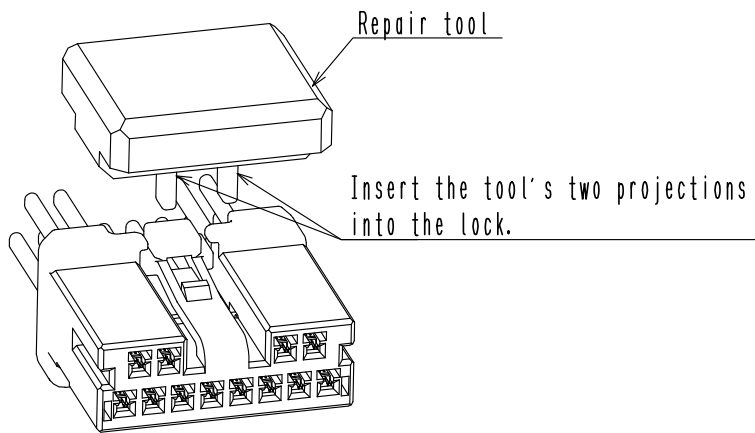
⚠ In the event that a jig will be used for setting of the retainer, please ensure that there is clearance on either side of the retainer. Using a jig that does not allow such clearance may result in damage to the female housing of the time of retainer insertion.



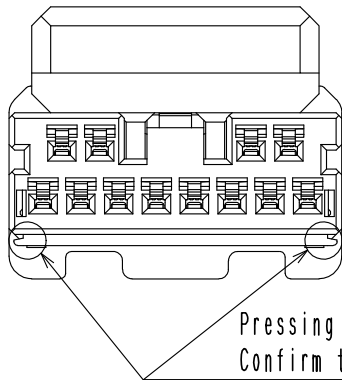
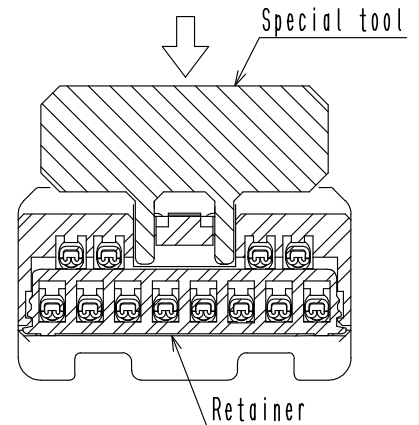
3. REPAIR PROCESS

- ① Using the special repair tool, disengage the retainer lock and return the retainer to the preset condition.

Note: Please refer to the following section (p. 6) for details on the special tool.

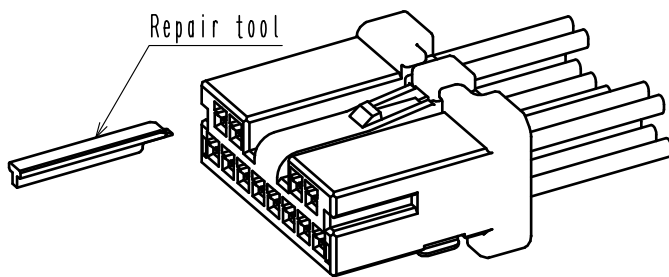


Connector Cross-Section
Set tool on retainer and push in the direction indicated by the arrow

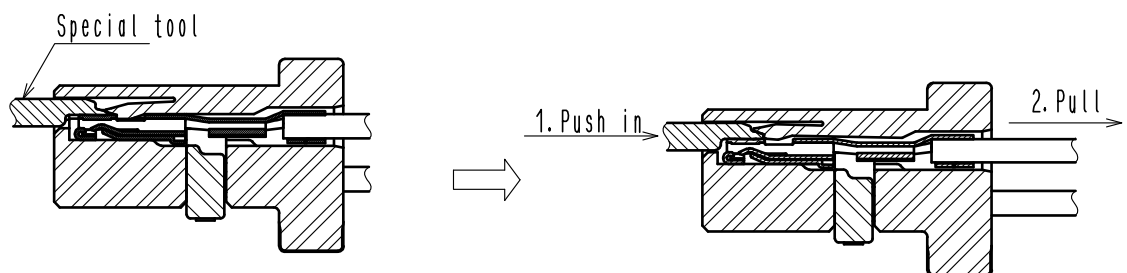


- ② Insert the tool into the terminal cavity and push until contact with the terminal is made. Maintain this position and remove the terminal.

Note: Please refer to the following section (p. 6) for details on the special tool.



Note: Connector cannot be re-used. Please use a new connector after repair is completed.



③Repair tool summary

Retainer Repair Tools - Part Number Summary

Applicable Part	Repair Tool Name	Repair Tool Part Number
ZE05-2S-HU/R(##)	ZE05-2DC-HU/R/RE-MD	902-5144-0
ZE05-4S-HU/R(##)		
ZE05-5S-HU/R(##)		
ZE05-8DS-HU/R(##)	ZE05-12DC-HU/R/RE-MD	902-5143-0
ZE05-12DS-HU/R(##)		
ZE05-16DS-HU/R(##)		
ZE05-20DS-HU/R(##)	ZE05-20-24DC-HU/R/RE-MD	902-5160-0
ZE05-24DS-HU/R(##)		



(##) = specification number

Crimped Terminal Repair Tool - Part Number Summary

Applicable Part	Repair Tool Name	Repair Tool Part Number
ZE05-2022SC(F)(##)	ZE05/RE-MD	902-5145-0

(##) = specification number

4. Other / Notes

- 1) Do not touch the terminal contact points or the interior of the barrel.
- 2) In the event that the terminal must be handled, please wear gloves in order to prevent corrosion.
- 3) Placing items on top of a terminal or dropping a terminal may result in shape deformities or contamination. Please handle terminals with care.
- 4) In the event of terminals becoming tangled, please do not forcibly pull or bend them apart, but disentangle them carefully.
- 5) Use caution when handling terminals so as to avoid deformation.
- 6) Make sure that the terminals of crimped cables do not become entangled. When bundling or stacking cables, please prevent the terminals from being subjected to any external force.
- 7) Use caution to ensure that the part is not subjected to any large impacts.
- 8) Avoid storing in dusty areas.
- 9) Do not place wire harnesses on the floor.
- 10) Refrain from any handling that may result in terminal damage or deformation.
- 11) If the retainer is out of the housing, do not use either the housing or the retainer.
- 12) Do not use if the housing is dropped.

5. CRIMP QUALITY STANDARD

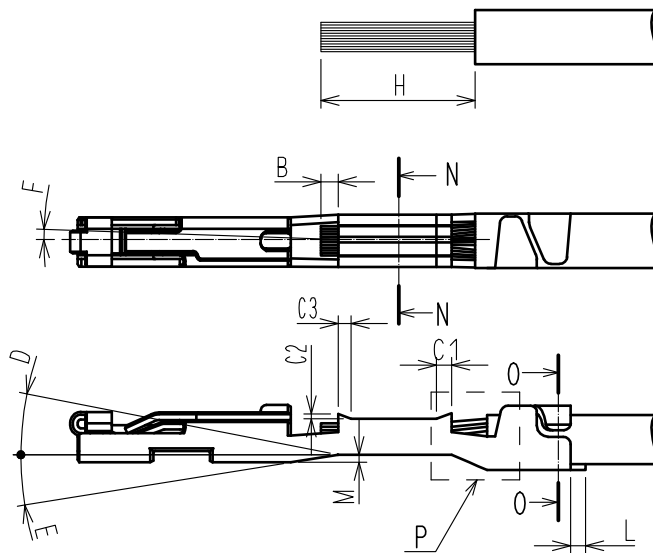
1. Scope

This technical specification prescribes crimp condition of ZE05-2022SCF (CL752-2001-0)

2. Applicable wire

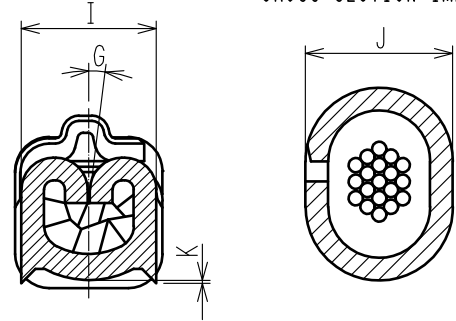
- Applicable wire size : 0.3~0.5SQ
- Applicable insulation size : $\phi 1.4 \sim \phi 1.7$ $\triangle 4$

3. Quality standard

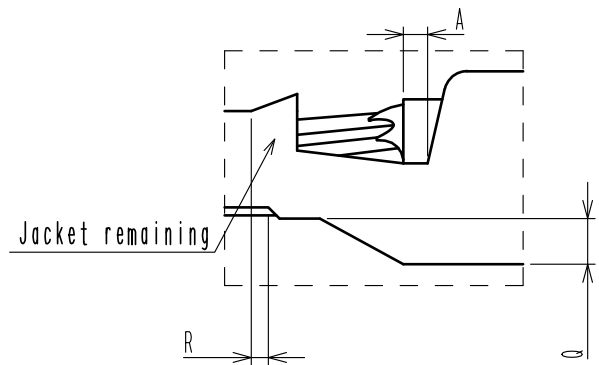


N-N(WIRE BARREL CROSS-SECTION IMAGE)

O-O(INSULATION BARREL CROSS-SECTION IMAGE)



P enlarged view



CHECK POINT		MEASURE (mm)	
JACKET LOCATION	A	0.3~0.8	
LOCATION OF TIP OF THE CORE	B	0.1~0.6	
BELL-MOUTH	C1	0.1~0.4	
	C2	0.1 max	
	C3	0.15 max	
BEND-UP	D	2° max	
BEND-DOWN	E	5° max	
TWIST	F	±2° max	
ROLLING	G	±5° max	
STRIP LENGTH	H	4.0~4.6	
WIDTH	WIRE BARREL	I	1.5 max
	INSULATION BARREL	J	1.63 max
HEIGH OF METAL CUT-OUT TEETH	K	0.12 max	
CUT-OFF TAB	L	0.1 max	
DIFFERENCE IN LEVEL ON TRANSITION PART APPLY ONLY BEND-UP	M	0.2 max	
DIFFERENCE IN LEVEL BETWEEN WIRE BARREL AND INSULATION BARREL	Q	0.25~0.4	
DISRANCE BETWEEN WIRE-CRIMPER AND WIRE-ANVIL	R	0.15~0.31	

Note1. Refer to a Crimping Data for the crimp height.

Note2. There is a possibility that a terminal is involved in jacket and crowded by the crimping, but it does no affect on the product function.

Note3. Please confirm that the crimped terminal can be inserted into a housing.