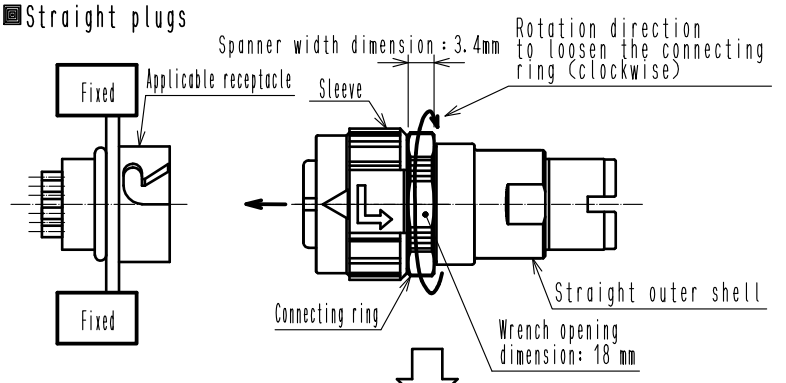
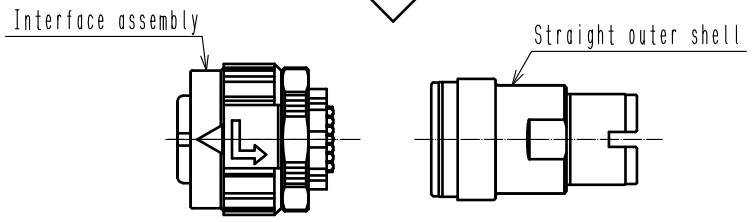
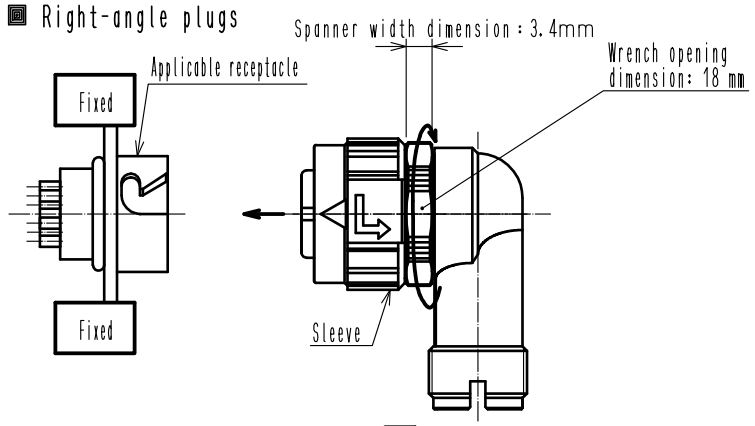
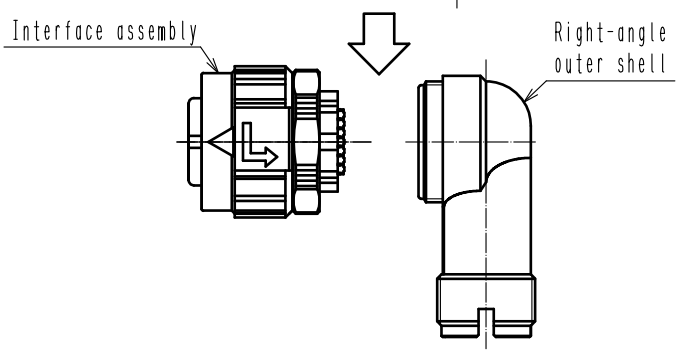
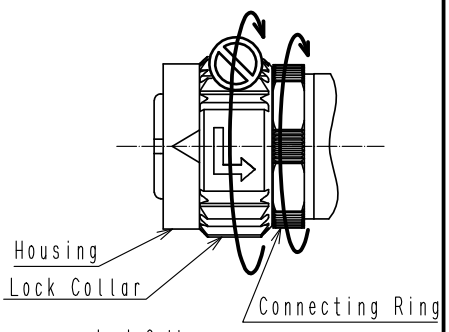
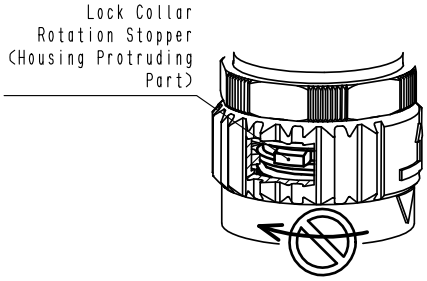
1. Scope

This document provides instructions for the cable assembly of HR08D plug connectors.

2. Termination procedures

No.	Illustration	Operation
1	■Straight plugs   ■ Right-angle plugs  	◆Disassembly of connectors After mating to an applicable receptacle, carefully loosen the connecting ring (rotate clockwise) and remove the straight (or right angle) outer shell. Note: P case could be broken by fixing straight (or right-angle) outer shell and untightening the sleeve together with the connecting ring without mating to an applicable receptacle. △3 ⚠CAUTION When loosening the connecting ring, be careful not to accidentally rotate the lock collar together. Rotating the lock collar forcefully can damage the rotation stopper (protruding part from the housing) which render the connector unusable.  

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△3	1	DIS-C-00004329	HT. ZENBA	HY. KOBAYASHI	20201026

TITLE

Termination procedure for HR08D plug connector

HIROSE ELECTRIC CO., LTD.

APPROVED	YH. YAMADA	20160527
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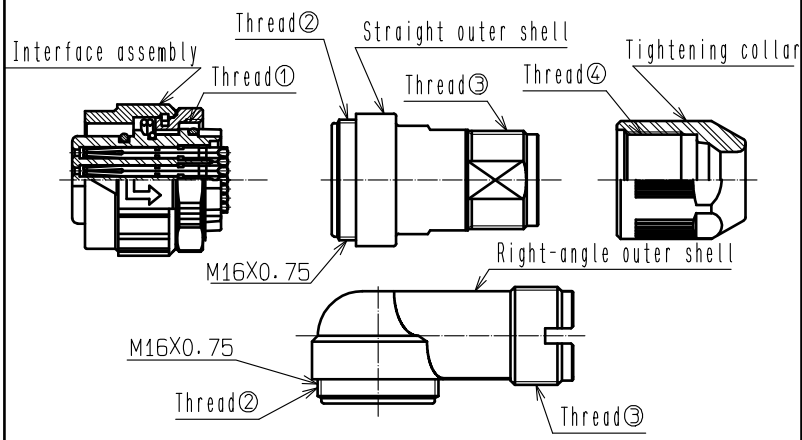
WRITTEN	DS. MATSUNE	20160527

TECHNICAL SPECIFICATION | ETAD-C0290-00 | △3 | 1/6

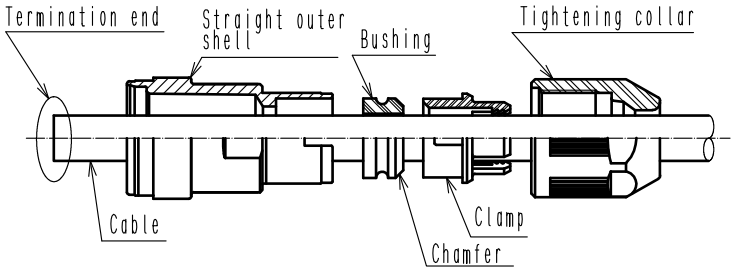
FORM 213-1

No.	Illustration	Operation
2		◆Connector assembly furnishings If the straight (or right angle) outer shell is made from plastic, using spray, brush or another method, coat all threads of the following parts with Loctite 7649(primer) (or equivalent) manufactured by Henkel Japan Ltd. If the straight (or right angle) outer shell is made from metal, there is no need to spray the M16×0.75 threads of either interfaceassembly or straight (or right angle) outer shell. Note: Allow for full drying in a well ventilated area (30 to 70 seconds), assuring that there is no contamination of the coated areas.

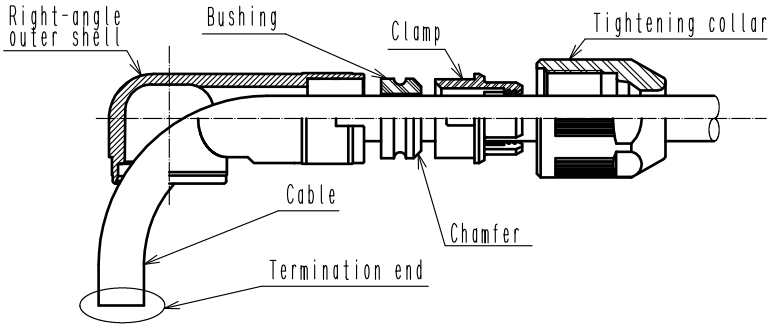
Occasion for application of Loctite 7649 (primer)

Straight outer shell Right-angle outer shell	Thread①	Thread②	Thread③	Thread④
Plastic	Necessary	Necessary	Necessary	Necessary
Metal	Unnecessary	Unnecessary	Necessary	Necessary

■ Straight plugs



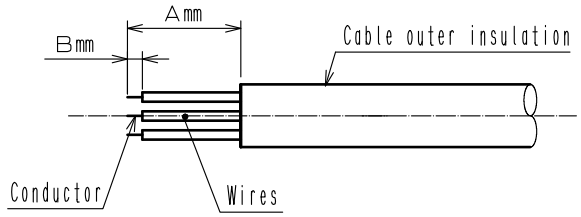
■ Right-angle plugs



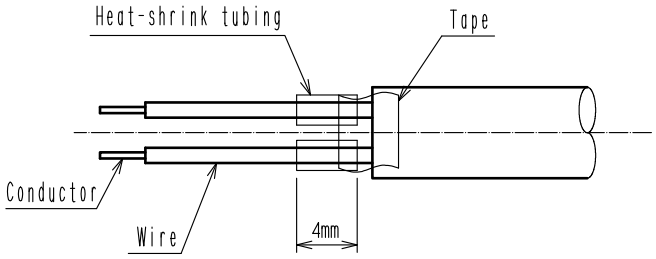
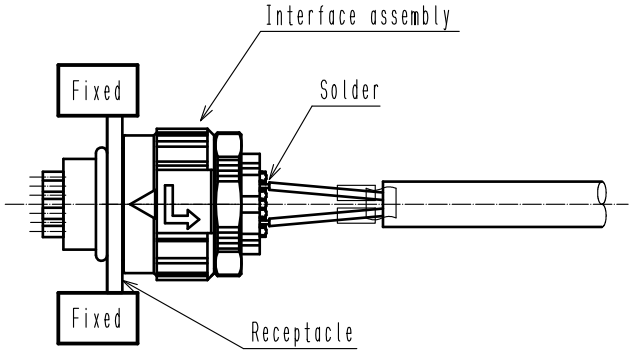
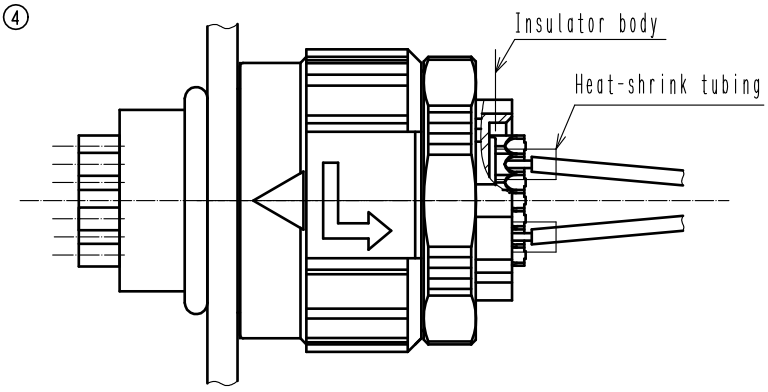
◆Passing of the cable through connector parts

Pass the cable through the individual parts as shown in the illustration (in the correct order) making sure that the termination end is on the correct side.

Note: Check the direction of the bushing. Assembling in wrong direction could cause failure of sealing.

3		◆Termination of the cable Using appropriate tools, strip the cable and individual wires per the dimensions shown in the table. Observe the allowed tolerances and avoid damage to the insulation or conductors.

	A	B
10-position, wire solder	15 $^{+1}_{0}$	2±0.5
10-position, crimp	20 $^{+1}_{0}$	3.2±0.3
2-position, wire solder straight	15 $^{+1}_{0}$	5±0.5
2-position, wire solder right-angle	20 $^{+1}_{0}$	5±0.5

No.	Illustration	Operation
4	① ②  ③  ④  	◆Wire termination of the connector 4-1 Type of wire solder ① Pre-solder the exposed conductors making sure that no individual strands are protruding. ② Prepare 4 mm long pieces of appropriate heat-shrink tubing and pass each over the wires toward the outer insulation of the cable, as shown in the illustration. Secure each of them with tape to the outer insulation. Note: The heat-shrink tubing will need to be moved over the solder joints after the completion of the soldering process. ③ Mate the interface assembly with the corresponding receptacle secured in a holding fixture (not supplied) or secure it by other means. Assure correct orientation and complete lock. Fully insert individual conductors in the corresponding solder cups and solder one at the time. Note:Assure that the solder compound has melted sufficiently and the solder joints are secure. ④Slide forward each of the heat-shrink tubing over the solder joints making sure that it rests against the surface of the insulator. Using a heat gun, shrink each over the solder joints. Note:Exercise caution not to damage the wire and cable insulation or other components.

No.	Illustration	Operation
4	① ②	4-2 Crimping type ① Following the instructions enclosed with the applicable tool, crimp the contacts to the wires. ② Verify the crimp height and configuration per the crimp condition table supplied with the tools.

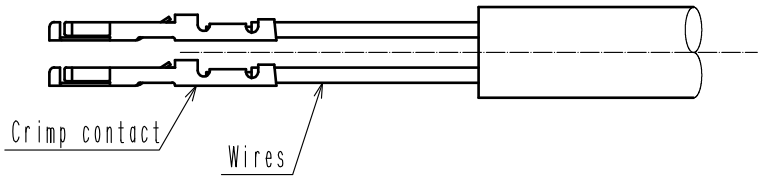
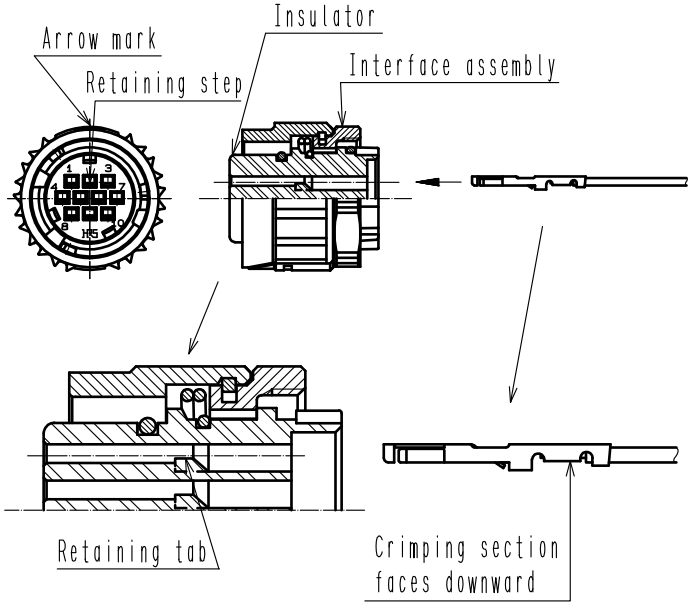


Table of Applicable Tools

Type	Name	Part number
Manual	Manual contact crimping tool	HT304/HR34B-1
Automatic	Press	CM-105C
	Applicator	AP105-HR34B-1



③ Insert the contact in the insulator with the retaining tab facing downward and the retaining step oriented as shown in the illustration.

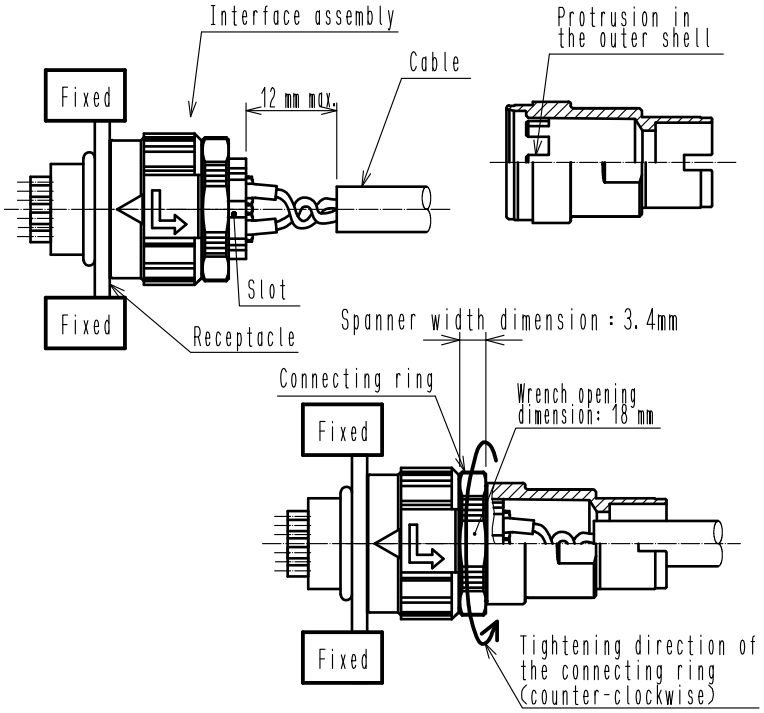
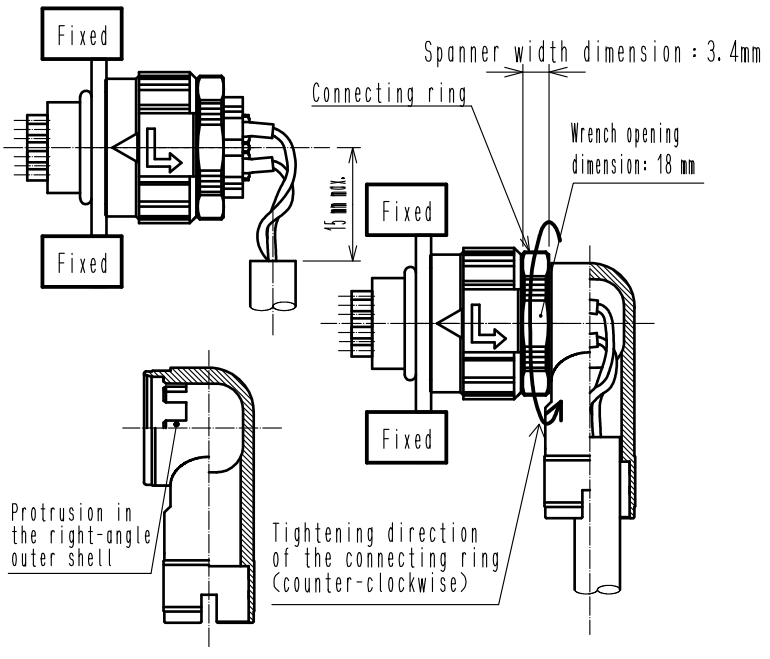
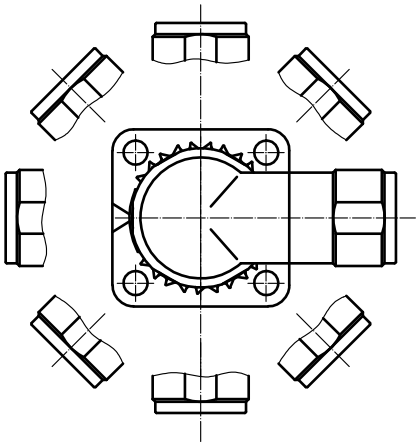
Full an insertion will be a confirmed with an audible click and tactile feeling.

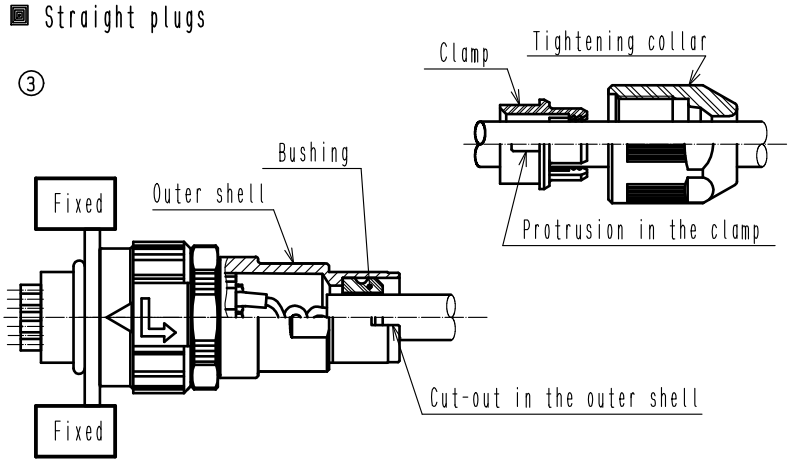
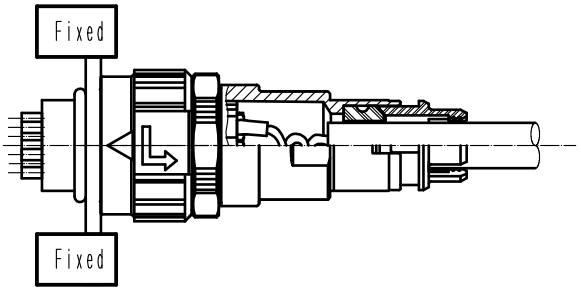
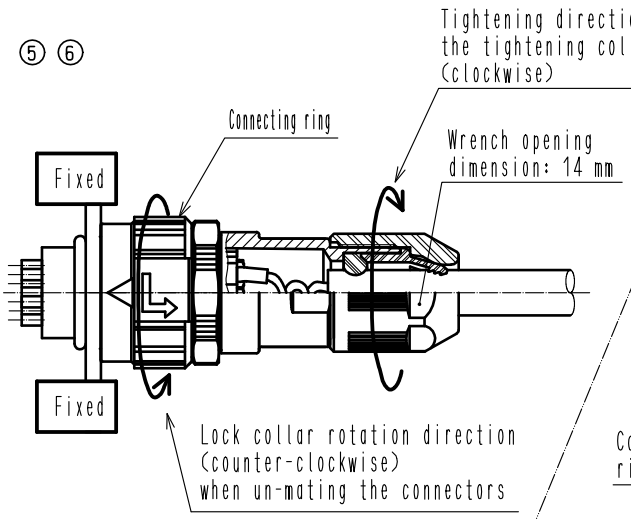
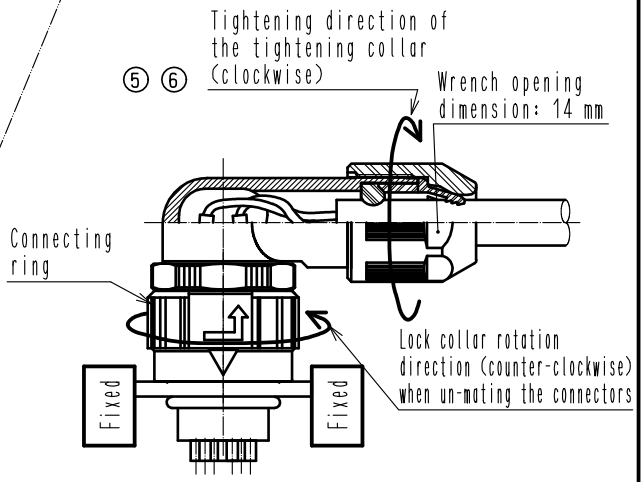
Verify full insertion with a slight pull on the wire. (pull force of 2 to 3 N)

Notes: (1) Incorrect orientation of the contact will result in damaged contacts.

(2) Do not push contacts further than needed to retain in the insulator body.

(3) P case retaining tab could be broken by pulling with more than 20N.

No.	Illustration	
5	■ Straight plugs ① ②  ■ Right-angle plugs ① ②  	◆Assembly of connectors ① Bring the insulation edge of the cable to the dimensions shown on the illustrations (12mm max. for the straight outer shell, and 15mm max. for the right angle outer shell) by forming the wires. Note:Make sure that there is no force applied to the individual solder or crimp joints. It is critical that the 12 mm max. and 15 mm max. dimensions (as applicable) are maintained through the completion of the assembly. Note:Failure to do so may result in failure of the cable strain relief and waterproof performance. ② Coat the threads of the outer shell with a Loctite 243 (or equivalent) compound. Align the protrusion in the outer shell with the corresponding slot on the back of the Interface assembly, insert and tighten the connecting ring, rotating it counterclockwise (0.9N.m to 1N.m torque) with mating to an applicable reseptacle. Note:Position the right angle outer shell as required at intervals of 45° with respect to the Interface assembly. Installation positions for the right-angle outer shell 

No.	Illustration	Operation
5	■ Straight plugs ③  ④  ⑤ ⑥  ■ Right-angle plugs ⑤ ⑥  	◆Assembly of connectors(continued) ③ Install the bushing at the specified position as indicated in the illustration on the left. ④ Install the clamp, making sure that the protrusion fits into the corresponding slot in the outer shell. ⑤ Coat the threads of the outer shell with a Loctite 243 and Loctite 7649 (primer) (or equivalent) compound and attach the tightening collar (0.9N.m to 1N.m torque), making sure that the clamp remains in the correct position. Note:Failure to do so may result in failure of the cable strain relief and waterproof performance. ⑥ Turn the lock collar in the direction shown and separate the plug from the receptacle. After the connector assembly procedure is completed, please confirm waterproof and electric performance.