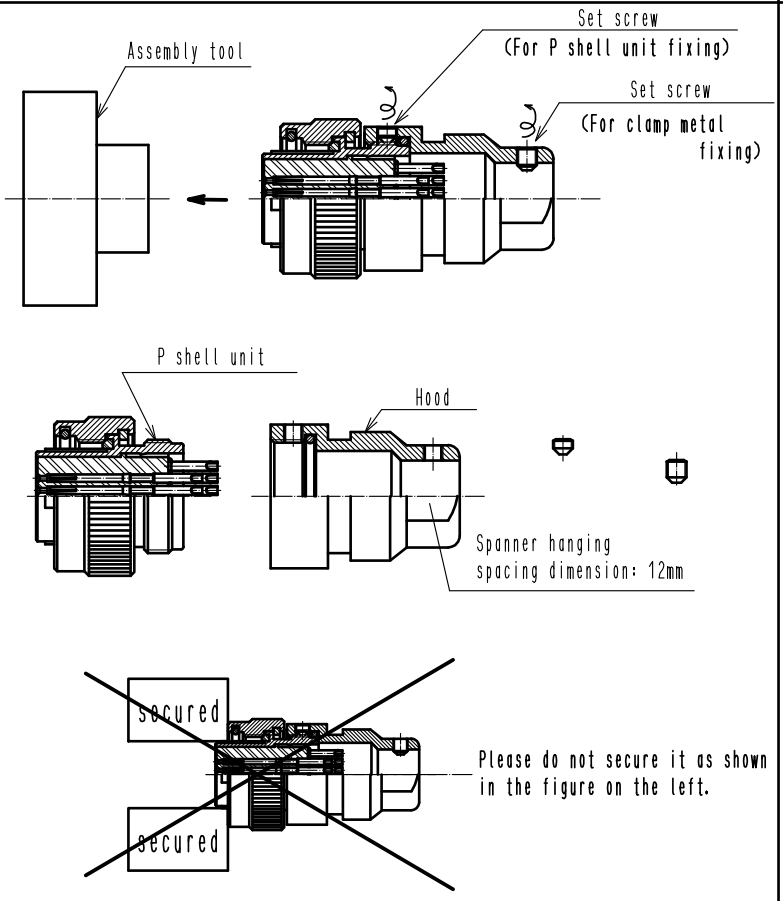
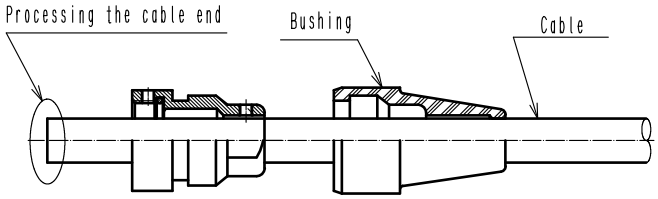
1. Scope of application

This document desceibes the recommended assembly procedure for HR22-12TPD-20S.
The procedure shown in this designation is when using a cable with whole shield and internal shield.

2. Procedure

No.	Illustration	Operation
1		・Plug Disassembly (1)Loosen the two set screws. Note)Since the length is different, please store them separately. The diagonal dimensions of both hexagonal holes are 1.27 mm. (2)After inserting the plug into the assembly tool, loosen and disassemble the hood from the P shell unit. Note)The P shell unit may be deformed or damaged if secured directly with a vise, etc.
2		・Threading the Connectors Hood and Bushing are threaded in the direction shown on the left. Note)After processing the cable end, parts may no longer be able to pass through the cable.

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△0	4				

TITLE

HR22-12TPD-20S
ASSEMBLY PROCEDURE.

HIROSE ELECTRIC CO., LTD.

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TECHNICAL SPECIFICATION | ETAD-C0104-00 | △0 | 1/4

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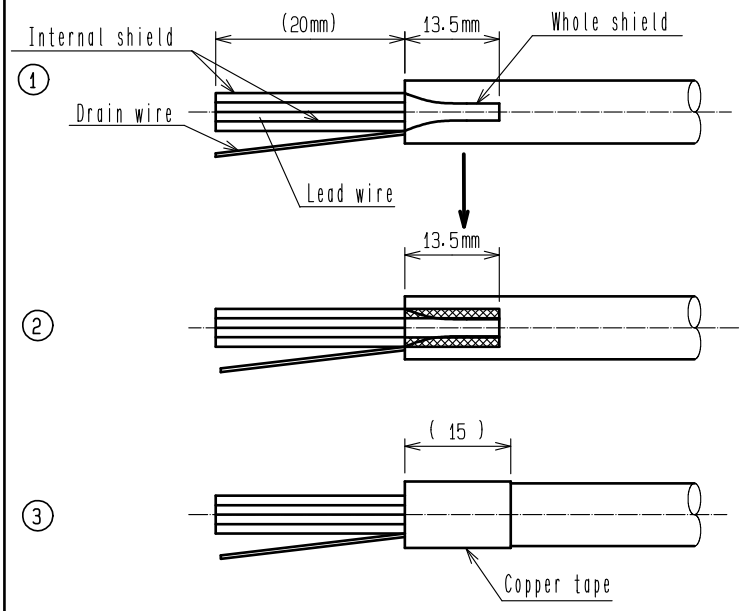
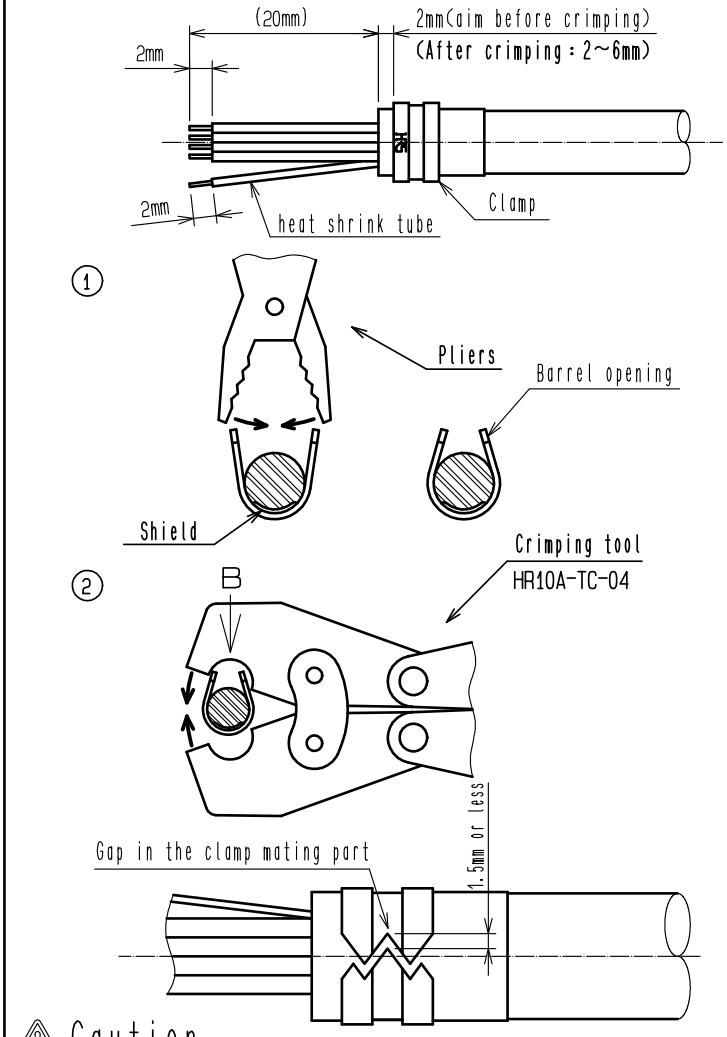
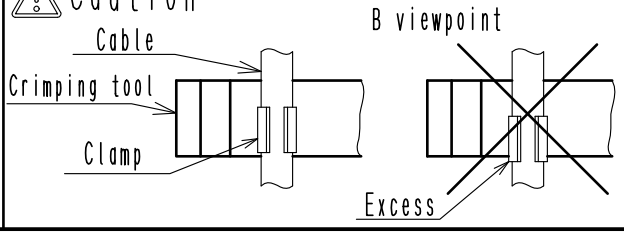
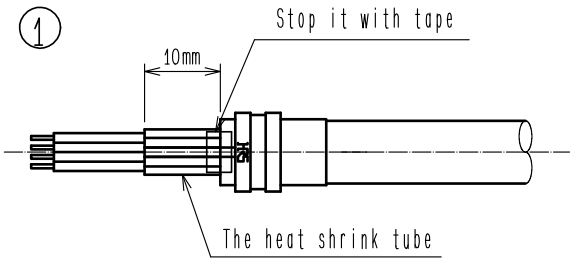
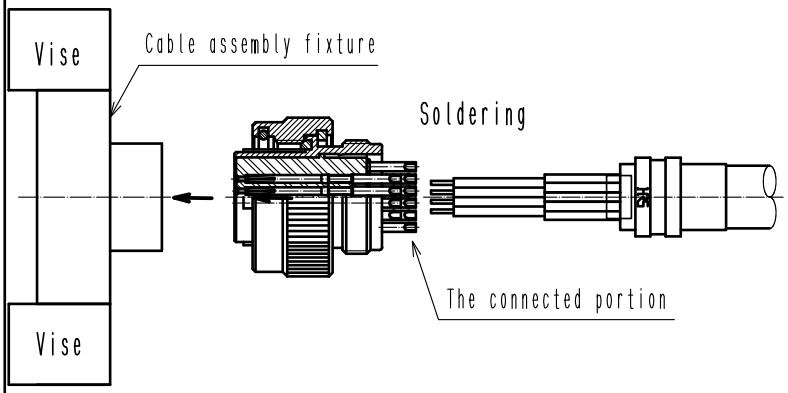
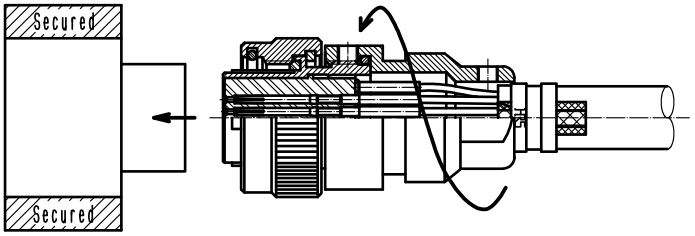
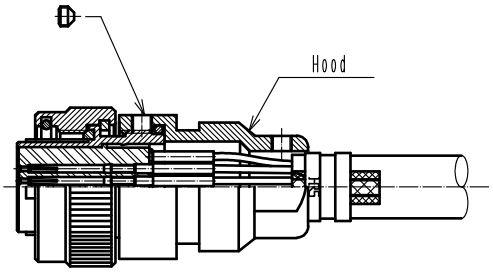
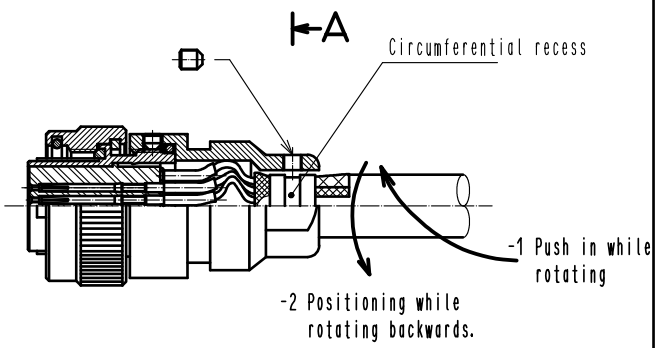
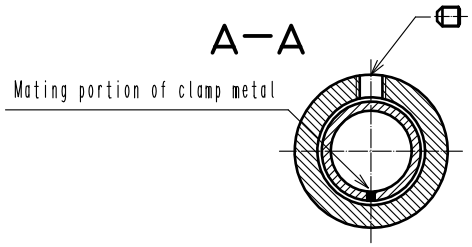
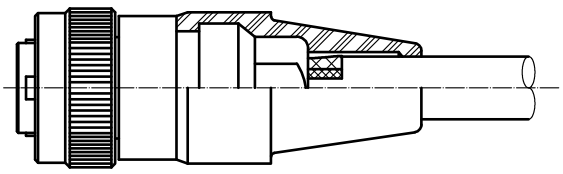
No.	Illustration	Operation
3		・Cable End Processing ① Strip the cable sheath. The entire shield will fold back at the strip position. Note) When stripping, if the coating of the shield, drain wire, or the lead wire is scratched, insulation failure or conduction failure may occur. ② The internal shield wire also folds back at the strip position. Note) Handle shielded wires so that the configuration in the cable sheath does not change. if the configuration changes, it may be easy for disconnection to occur at the crimped part after crimping the clamp metal. ③ Wrap copper tape around the cable so that the folded shield line hides.
4		・Clamp Metal Crimping and Lead Wire Stripping After crimping the clamp metal as follows, strip the leads. In addition, it will be insulation by covering drain wire with a heat shrink tube. The gap dimension of the clamp metal should be 1.5 mm or less after crimping. ① Set the shield wire on the clamping bracket so that it is located opposite the barrel opening, and crush the barrel opening with pliers or the like so that it is invited to the tightening hole of the crimping tool. ② After shortening the barrel opening with a crimp tool so that it fits in the caulking hole, proceed with crimping. Note) I.) Crimping the clamp metal over the folded shield wire increases the clamping force. II.) If the gap between the clamp fittings is wide, the fixing force is weak and the terminals come out, causing conductivity failure. III.) If the core wire is scratched when stripping the lead wire, conduction failure may occur.
	⚠Caution 	Be careful not to stick out the clamp from the tool. If the clamp is sticked out and crimped, it may not be assembled into the connector or the performance may be impaired.

No.	Illustration	Operation
5	① 	・Wire connection by solder Soldering conditions Soldering iron temperature 350±10℃ Soldering time within 3s ① Pass the heat shrink tube through the electric wire and stop it with tape to prevent it from falling. ② The cable assembly fixture is fixed with a vise, etc., and the P shell block are mated and soldered. Note) Be careful to avoid a cold joint, an overheated joint, whisker, or any other defects and not to melt an insulated wire and a housing. ③ Cover the heat shrink tube with contact and make it shrink after soldering. Note) Be careful to melt insulated wire and housing when making the heat shrink tube heating shrink.
	② 	
	⚠ Caution Certainly, fix cable assembly fixture in order not to move by torque assembling conecter. IF it is not fixed enough, the conecter is broken and it may not be tightened by specified torque because it leans, etc. during assembly work.	
	⚠ Caution Follow the soldering conditions. Otherwise, the insulator may melt or the terminal may be loosened.	

No.	Illustration	Operation
6	①  ②  ③   ④ 	・Connector Assembly ① Tighten the hood to the connected P shell unit. (Recommended tightening torque : 2 N・m) Tightening is performed when the connector is mated to a termination tool secured with a vise, etc. Note) If the P shell unit is secured directly with a vise etc., it may be deformed or damaged. When tightening the hood, if the cable also rotates it, will be broken. Please hold it so that it does not turn. ② Tighten the set screw for securing the P shell unit. (Recommended tightening torque : 0.3 to 0.4 N・m) In addition, apply Locktite 263 or equivalent to the set screw to prevent loosening. Note) The incorrect amount of tightening torque may result in breakage, loosening, disconnection, etc. ③ The clamp metal crimped on the cable is positioned in the following steps so that the tip of the setscrew hits the circumferential recess as A-A cross section. Then the set screw is tightened and fixed to the hood. (Recommended tightening torque : 0.3 to 0.4 N・m) In addition, apply Locktite 263 or equivalent to the set screw to prevent loosening. -1 Push the cable into the hood while rotating (within 1 revolution). -2 After that, positioning is performed while rotating backwards (within 1 revolution). Note) When pushing in the cable, if it rotates too much, disconnection, breakage, contact disconnect, etc. will occur. in addition, an incorrect amount of tightening torque may result in breakage, loosening, disconnection, etc. ④ Place the bushings over the hood. (Done)