

# Triaxial Connector Instruction Manual (CCM5-PF/PFR, CCF5-JF/JFR)

Thank you for purchasing a CANARE Product.

### ⚠ Note

Before using this connector, please be sure to read this instruction manual for the correct use. When connecting a cable, follow the instructions of this manual. Please keep this manual for future reference.

### ⚠ Warning

- Please follow this instruction manual exactly when attaching a cable.
- Please do not damage, forcefully bend, twist or strike the cable.
- Anyone except for electricians/electric engineers are strictly prohibited from disassembling, repairing, or modifying this connector.

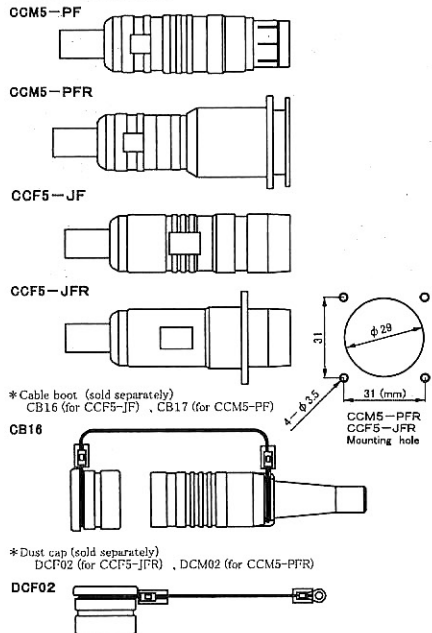
### <Specification>

- Model CCM5-PF / CCM5-PFR  
CCF5-JF / CCF5-JFR
- Applicable Cable 4.8 / 1.0EFTXF(Fujikura), L-5CFTX(CANARE)
- Withstand Voltage AC 1000V, 1 minute (between respective conductors; with a cable connected)
- Insulation Resistance DC500V, 5000MΩ or above
- Characteristic Impedance 75 Ω

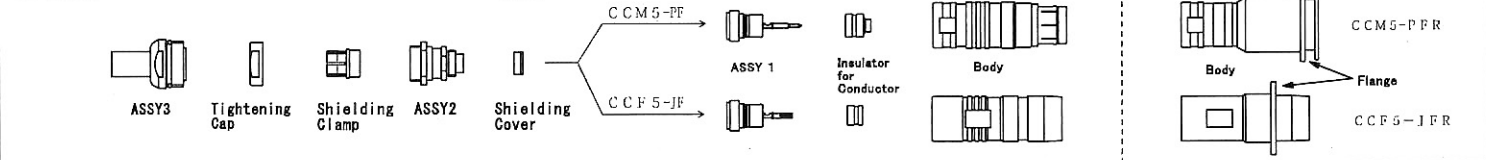
CANARE ELECTRIC CO. LTD. (Japan) +81-3-5821-5485  
CANARE CORPORATION OF AMERICA <http://www.canare.com>



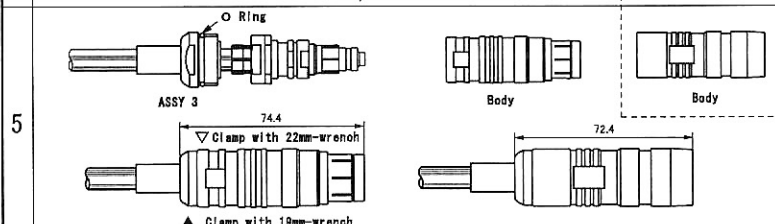
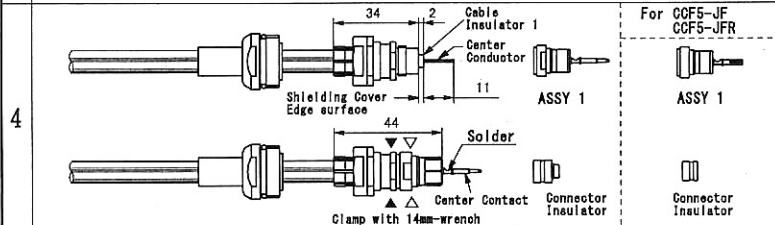
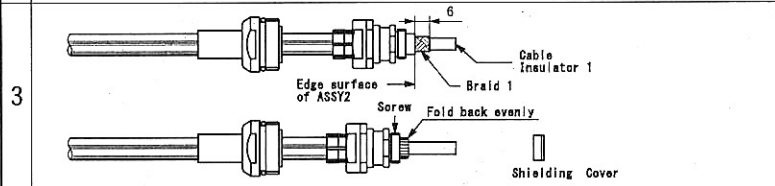
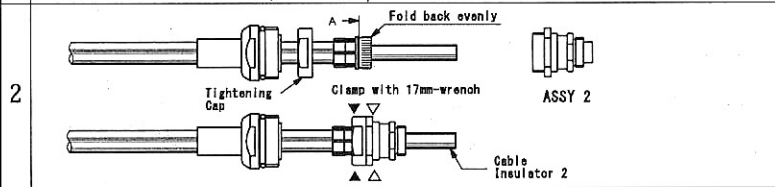
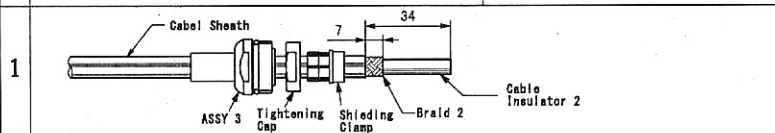
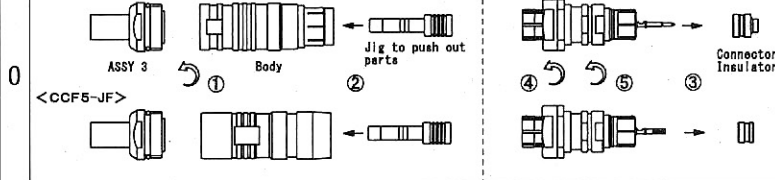
### <Product lineup>



### <Parts>



### <CCM5-PF>



### <<Taking out a part>>

- ① Loosen the screw ASSY3 manually and take it away from the body.
- ② Insert the part-removing jig provided as an accessory, take the part out from inside the body.  
★ Due to the risk of damaging the part, ensure the jig specialized for removing parts is used.
- ③ Pull the insulator forward to take it out.
- ④ & ⑤ Loosen screws manually and take out the part.  
★ Make sure none of the individual parts shown in Fig. 1 is missing.  
★ Parts in Fig. 1 should not be disassembled further.  
※ CCM5-PFR and CCF5-JFR, which have a flange, should be connected in the same way as CCM5-PF, and CCF5-JF respectively.

### <<Connecting with a cable>>

- ★ Wrenches to use: two for 14mm, 17mm respectively; one for 19mm, 22mm respectively.
- ◇ Thread ASSY3, the Tightening Cap, and Shielding Clamp with a cable, ensuring those are facing in the right direction. If there is a cable boot to put in, thread it first.
- ◇ Cut out the Cable Sheath and Braid 2 in the length specified in the figure on the left.  
\* Remove completely the shavings and chips from Braid 2.  
\* Be careful not to scar the Braid 2 Insulators.
- ◇ Slide the Shielding Clamp back to the position where the Cable Sheath was cut. Smooth the mesh of Braid 2, and then fold it back on the cable clamp to an even width as shown in the figure. Trim the folded part of the rim of Braid 2 so that it does not reach A as shown in the left figure.  
\* If not folded back evenly, it may cause the screw to become loose.
- ◇ Thread ASSY2 with a cable and tighten the Tightening Cap with a 17-mm wrench. (at positions of ▼)  
\* Clamp with the wrench on the side of ▼. (This should be applied all the cases hereafter.)  
\* Clamping torque: 40 ~ 45 kgf·cm.  
\* Make sure the screw is not loose.
- ◇ Cut out Cable Insulator 2 at the edge of ASSY2.  
\* Be careful not to scar Braid 1 in cutting Insulator 2.
- ◇ Cut out Braid 1 at a position 6 mm from the edge of ASSY2.  
\* Remove completely shavings and chips from Braid 1.
- ◇ Smooth the mesh of Braid 1, and fold it back on ASSY2 evenly as in the figure. Trim the folded part of the rim of Braid 1 so that it does not reach the screw.  
\* If not folded back evenly, it may cause the screw to become loose.
- ◇ Thread the Shielding Cover deeper to the end so as to cover all of Braid 1.  
\* There will be a gap of approx. 1mm with the screw.
- ◇ Cut out Cable Insulator 1 at a position 2mm from the edge of the Shield Cover.  
\* Be careful not to scar the Center Conductor in cutting Insulator 1. The Center Conductor should be 11mm long after the cutout.
- ◇ Thread ASSY1 and clamp at ▼ and ▼ with the 14-mm wrench.  
\* Make sure the Center Conductor is situated inside the Center Contact before threading ASSY1.  
\* Clamping torque: 40 ~ 45 kgf·cm  
\* Make sure the screw is not loose. Check if the size is right after clamping.
- ◇ Solder the Center Conductor of the cable and the Center Contact together.  
\* Use just enough solder to fill a solder cup. Be careful not to make a splash. Solder them quickly and then confirm the bond is firm and solid. If the center contact is bent at the soldered joint, just correct it.
- ◇ Fit the Connector Insulator into the Center Contact.
- ◇ Make sure each part is not loose, and then fit the Body in (until you feel the click for locking).
- ◇ Clamp the Body and ASSY3 with the wrenches of 19mm and 22mm (at ▼ and ▼)  
\* Clamping torque: 50 ~ 60kgf·cm.  
\* Make sure the screw is not loose. An O ring should be placed fully inside the Body.  
★ Finally, check the size (of the connector) and the status of the connection, after the cable has been assembled to the connector.

### ⚠ Note

- ★ Ensure shavings and chips from the Braid 1 & 2 do not enter inside the connector, as it may cause a short circuit.
- ★ In tightening the screw, use only designated wrenches, and apply the torque specified so that it will not loosen easily.

# Triaxial Connector Instruction Manual

## (CCM7-PFC/PFRC, CCF7-JFC/JFRC)

Thank you for purchasing a CANARE Product.

### Note

- Before using this connector, please be sure to read this instruction manual for the correct use.
- Please keep this manual for future reference.

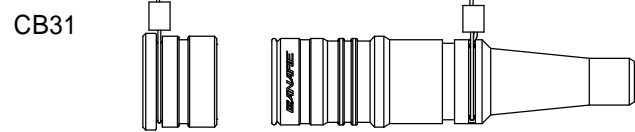
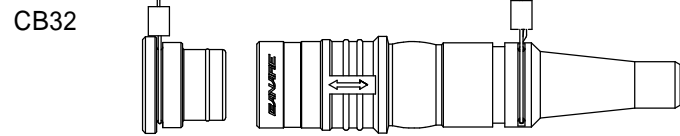
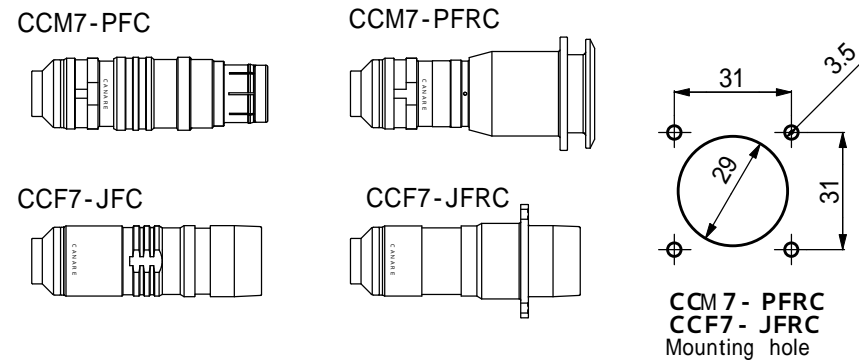
### Warning

- Please follow this instruction manual exactly when terminating a cable.
- Please do not damage, forcefully bend or twist the cable.
- Anyone except electricians /electrical engineers are strictly prohibited from disassembling, repairing, or modifying this connector.
- Please be sure locking device is in place when connectors are mated.
- Appropriate protection should be taken if used outside.

Model CCM7-PFC / CCM7-PFRC / CCF7-JFC / CCF7-JFRC  
 Applicable Cable CANARE : L-7CFTX-SC  
 BELDEN : 7764A , KLOTZ : TRIAX11  
 BEDEA,D : TRIAX11 SUPERFLEX

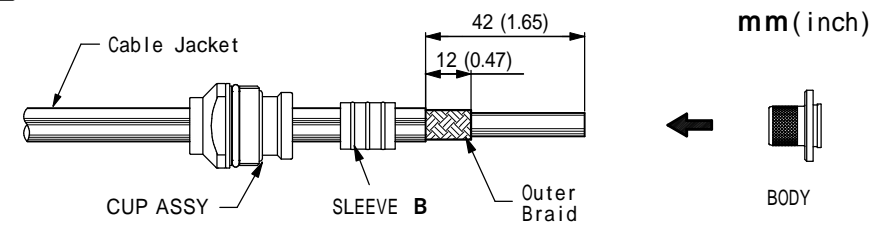
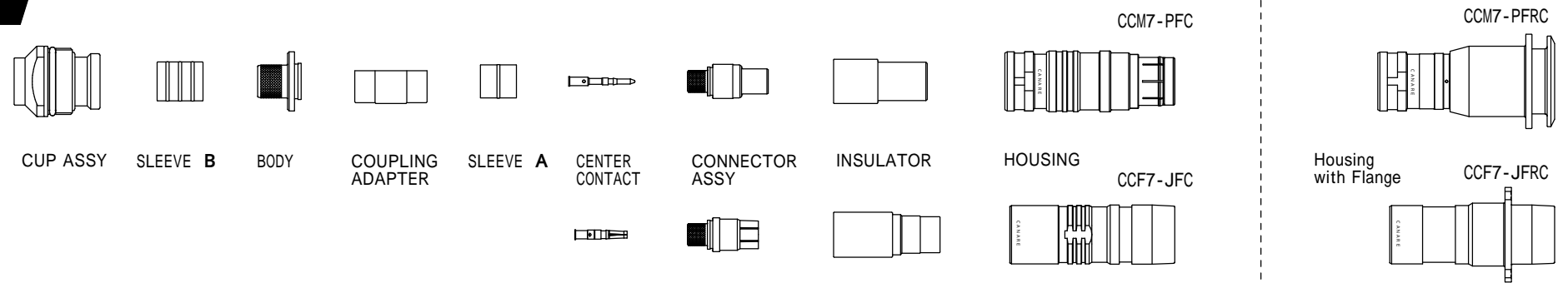
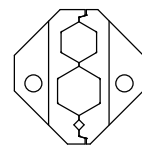
Insulation Resistance 5000M or above at 500VDC  
 Characteristic Impedance 75

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 CANARE CORPORATION OF AMERICA <http://www.canare.com> (818)365-2446



DC F02  
DCM02

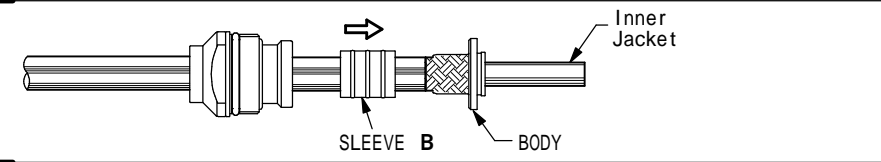
Crimping TOOL : TC- 2  
Crimping Die : TCD-96C



Wrenches : 19mm, 22mm / Crimping Tool & Die : TC- 2 & TCD- 96C

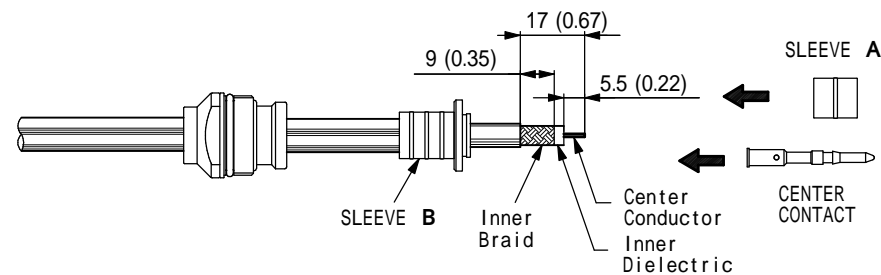
Diagram references CCM 7-PFC but instructions & dimensions can be used for all models. Slide CUP ASSY and SLEEVE B over the cable; remove Cable Jacket and Outer Braid of cable as shown in the diagram.

- \*If you want to use cable boots CB31 or CB32, first you need to insert the boot onto the cable.
- \*Remove completely the shavings and chips from Outer Braid.



Insert the BODY into the cable as shown in the the diagram (under the OuterBraid), and slide SLEEVE B over Outer Braid.

(Note) DO NOT Crimp SLEEVE B yet. Cut excess braid to fit the BODY accordingly.



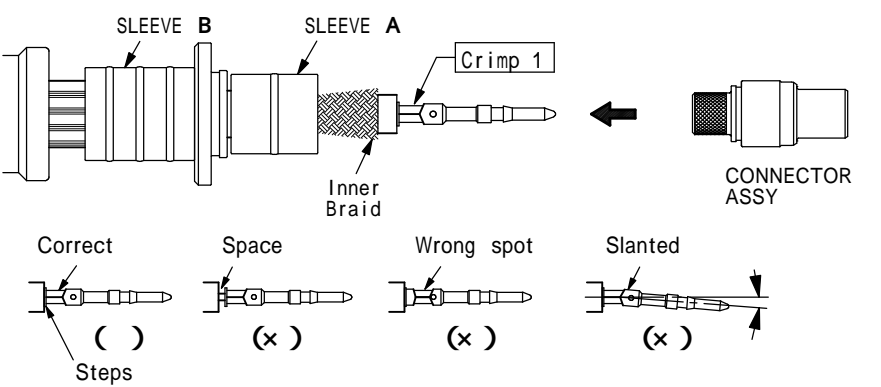
Strip Inner Jacket, Inner Braid and Inner Dielectric, expose Center Conductor to the dimensions specified in the diagram.

(Note 1) When Center Conductor is stranded, twist the strands in the same direction after cutting the insulation.

(Note 2) Be careful not to nick or damage Center Conductor. Clean up any insulator scraps that may still remain attached to the Center Conductor.

(Note 3) Clean up any braid scraps that may still remain attached to the Inner dielectric.

Slide SLEEVE A onto the cable.



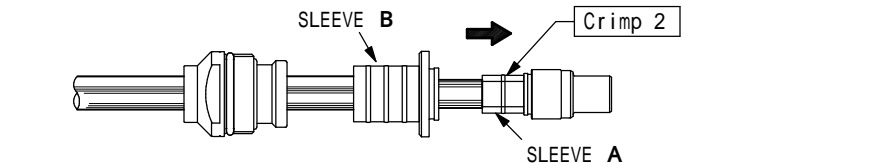
Place CENTER CONTACT on Center Conductor. Using the TC-2 hand tool and TCD-96C die set, crimp CENTER CONTACT as shown in the diagram ( Crimp 1 ). Do not leave a gap between rear of the pin (or socket) and cable Inner dielectric end. Also, do not crimp stepped part in the base of Center Contact as shown in the diagram.

(Note) Measure crimp height to determine whether the CENTER CONTACT was crimped correctly. Be sure to remove splinters and remnants before measuring. The reference value of the crimp height should be 1.97-2.07mm(0.078-0.081 in). If greater or less than the reference value, adjust TC-2 hand tool. Confirm the center contact pin is crimped straight to the center conductor. If the center contact pin is slanted, align it gently.

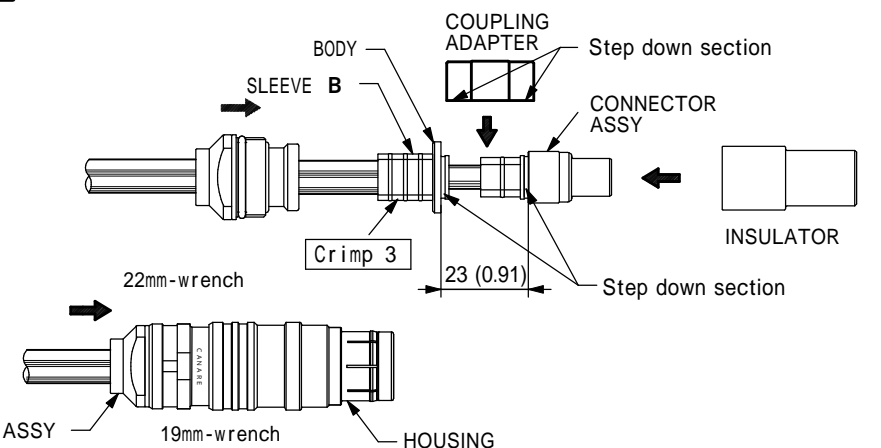
Spread out the Inner Braid in order to insert the connector body smoothly. Insert the CONNECTOR ASSY to the cable until "snap" locked.

(Note) Jamming the pin (or socket) may bend center conductor and damage Connector dielectric.

Lightly tug cable (20N : 4.5lbsf) to verify that pin (or socket) is properly seated in the CONNECTOR ASSY.



Slide SLEEVE A up against CONNECTOR ASSY and place into the die. Complete assembly by crimping down on SLEEVE A to form hex ( Crimp 2 )



Set COUPLING ADAPTER between BODY and CONNECTOR ASSY, snap in place. Make sure to fit into recesses of BODY and CONNECTOR ASSY.

Slide SLEEVE B up against BODY and place in the die. Complete assembly by crimping down on SLEEVE B to form hex ( Crimp 3 )  
 Slide INSULATOR over CONNECTOR ASSY and COUPLING ADAPTER see diaram.

Drive HOUSING over completed assembly and tighten CUP ASSY and HOUSING using open wrenches size 19mm and 22mm at and  
 \* Apply torque force 5~ 6 N m (44-52lb in) .

Finally, check the size of the assembled connector and status of the connection.

### Note

Make sure shavings and chips from inside and outside braids do not enter inside the connector, as it may cause a short circuit.  
 When tightening the CUP ASSY, use only designated wrenches, and apply the torque specified.