



INSTALLATION INSTRUCTIONS

RSTI-x95x

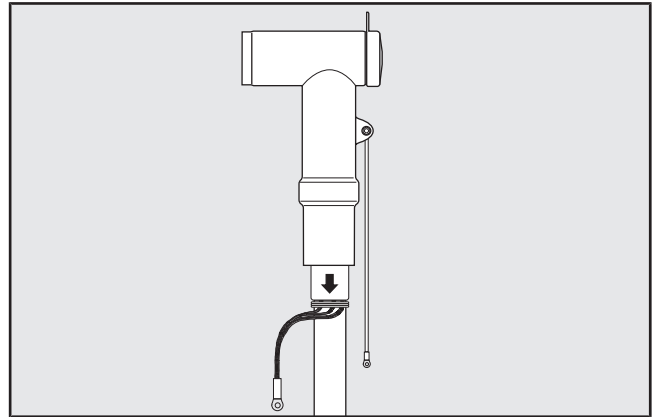
EPP-1719-12/24

TE Raychem Screened Separable Connector 800 A

for Bushing Profile “C” in Accordance to EN 50181

Single Core Polymeric Insulated Cable

42 kV



Cable Accessories

▲ WARNING

It is essential to observe the applicable safety regulations for working with high voltage equipment.

For precise safety information please contact the responsible authority.

The Information contained in these installation instructions are for use only by installers trained and qualified to make electrical power installations. A sufficient training and qualification will be assumed if installers have completed a TE Training (with certification; offered by the TE Connectivity Training Center). TE Connectivity has no control over the field conditions - such as temperature and humidity - which have an impact on the product installation. A correct installation depends on the appropriate conditions or installation equipment. These field conditions are not within the scope of TE Connectivity's responsibility. Raychem, TE, TE Connectivity and TE connectivity (logo) are trademarks.
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Please dispose of all waste according to environmental regulations.



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1 Important - Read Before Starting

1.1 Intended Use

The kit is intended to be used only for applications as specified in the header of these installation instructions. Any use which does not comply with the intended use will result in an unsafe operation of the installed product.

1.2 Responsibility of Users and Installers

As TE is not familiar with the cables used and the individual installation and installation conditions, it is beyond TE's responsibility whether the individual installation is appropriate in particular safe and compliant with the applicable local rules and regulations. The user and/or installer shall care for the conditions under which the individual installation will take place and safeguard a safe, appropriate, and compliant installation.

Observe the applicable safety regulations for working with high voltage equipment. For precise safety information, contact the responsible authority.

1.3 Read before Starting the Installation

Make sure that the kit complies with the cable specification. Refer to the kit label as well as the product description and the application named on the header of the installation instructions.

Please note: Components or working steps may have been modified since you last installed this product. Carefully read and follow the steps in the installation instructions.

1.4 General Instructions

Check the cable ends for moisture, if not properly sealed. In case of moisture, cut away enough cable length to remove all moist material.

It is the installer's responsibility to find the appropriate method of cleaning all parts without leaving any residues.

Installers shall care for the cleanliness of the installation area.

Every installation step must be carried out with clean hands.

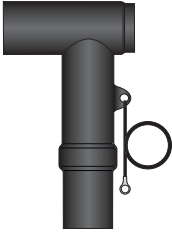















Make sure the core preparation dimensions are correct before installing the product.

Lubricate the prepared cable with only provided grease.

For easy strip screen layers always use a round file to cut radially through the core screen.

2 Kit Contents

Table 1

S.No	Description	Part Picture	Qty.
1	Connector body		3
2	Back plug		3
3	Gloves		3
4	Covering cap		3
5	Stress cone		3
6	Main cable lug		3
7	Binding wire		1
8	Threaded pin M16		3
9	Assembly lubricant		2
10	PVC tape		1
11	Cable lug (16 - 70)		3
12	String		1
13	Screen cable lug		3
14	Combinut M16 (or) Washer and hex nut		3
15	Protective bag		3
16	Sealing tape (grey)		6

3 Kit Selection

Table 2

Cross Section (mm ²)	Voltage Class (U _m) / kV	Ø Core Insulation		Reference No. Al or Cu
		Min.	Max.	
400	12	28.9	36.4	RSTI-3951
500		28.9	36.4	RSTI-3952
630		34.0	45.4	RSTI-3953
800		34.0	45.4	RSTI-3954
400	24	34.0	45.4	RSTI-5951
500 - 630		34.0	45.4	RSTI-5952
630		39.1	59.0	RSTI-5953
800		39.1	59.0	RSTI-5954
400	36 & 42	34.0	45.4	RSTI-6951
500 - 630		39.1	59.0	RSTI-6952
800		39.1	59.0	RSTI-6953

4 Cable Preparation

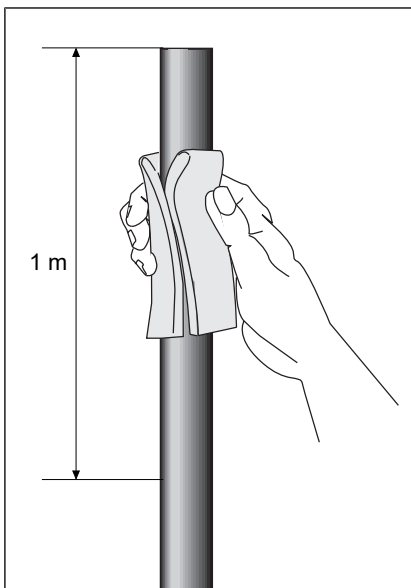


Figure 4.1

4.1. Preheat the cable and use appropriate devices to straighten the cable.

4.2. Clean and degrease the end of the oversheath for a length of 1 meter with solvent wipe.

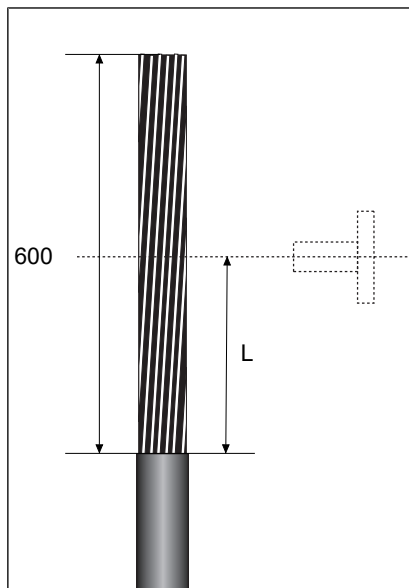


Figure 4.2

4.3. Position the cable with sufficient overlap to the bushing center.

4.4. Mark the overshath L below the bushing center.

4.5. Cut the cable 600 mm above the mark and remove the overshath over this distance. Cut off Cu-spiral screening tape flush with end of outer sheath.

NOTICE

Edges projecting beyond the outer sheath must be avoided, so that the stress cone cannot be damaged during push on procedure.

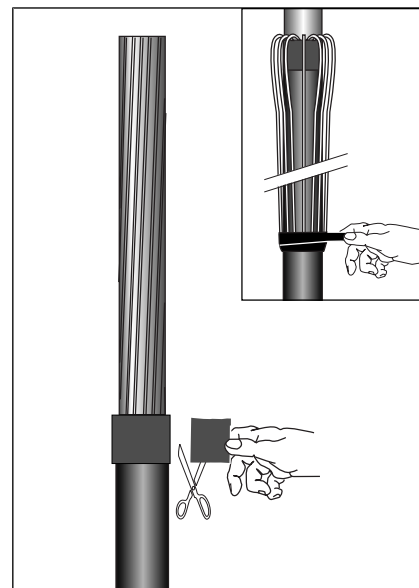


Figure 4.3

4.6. Wrap one turn of sealant tape (grey) with no overlap and slight tension around the end of the overshath.

4.7. Cut the tape and push ends together.

4.8. Bend the shielding wires back onto the overshath.

4.9. Avoid crossing the individual wires. Temporarily secure the wires with a tape or wire binder.

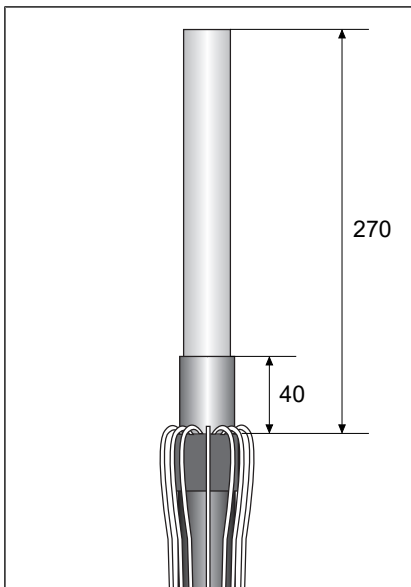


Figure 4.4

4.10. Cut the core according to the dimension given in the drawing. Remove the core screen with appropriate screen cutting tool according to the drawing. The surface of the insulation should be free from all traces of conductive material. Compare the diameter over insulation with application range as shown in **Table 2** as well as with marking of supplied stress cone.

⇒ Application Check!

NOTICE

Do not nick the insulation.

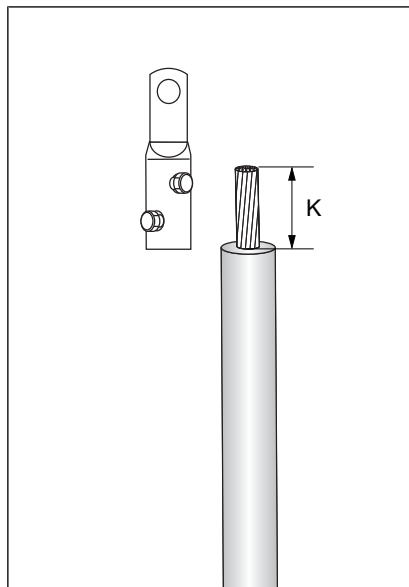


Figure 4.5

4.11. Cut back the insulation according to dimension **K**, see **drawing details**.

4.12. Dimension **K** is identical to bore depth. Barrel of lug butts against insulation.

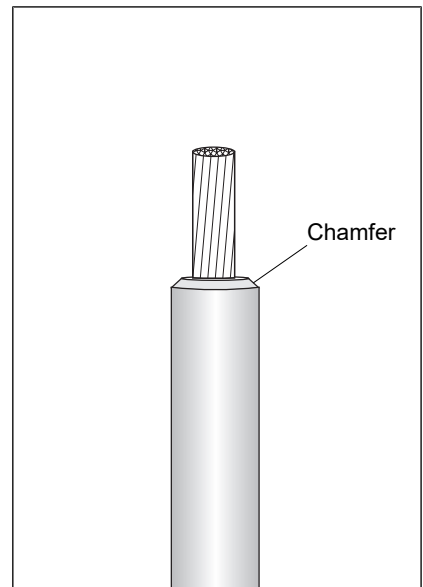


Figure 4.6

Recommendation for large cross sections

4.13. Convenient push on process of the stress cone requires chamfering of the insulation for cross section 240 mm² and above. See drawing!

5 Core Preparation

Table 3: Application Range of Mechanical Connectors

Part Number	Cross section (mm ²)	Ø over round stranded Al or Cu conductors (mm)	Ø over round solid Al conductors (mm)	L (mm)
BLMC-150/400-16-1250A	150 - 400	13.7 – 24.6	12.9 – 22.2	318
BLMC-400/630-16-1250A	400 - 630	19.7 - 24.6	19.8 - 22.2	325
BLMC-500/630 MK2-16-1250A	500 - 630	25.3 - 32.5	24.0 - 28.3	325
BLMC-800-16-1250A	800	32.5 - 35.3	30.9 - 32.1	325

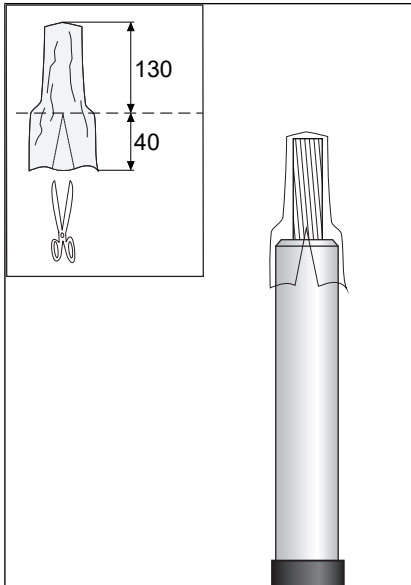


Figure 5.1

5.1. Cut the small protective bag (assembly aid) at the bottom end at a length of 40 mm on one side (see detail).

5.2. Slide the protective bag over the exposed conductor as shown.

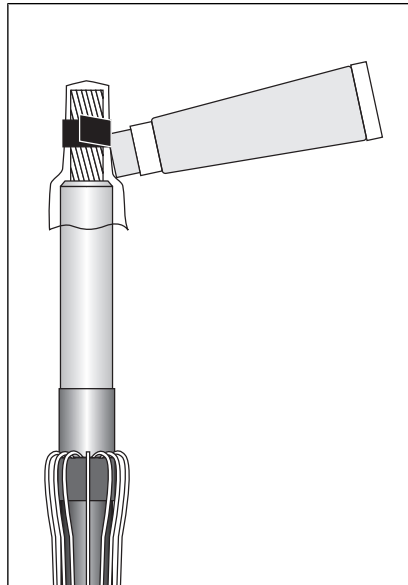


Figure 5.2

5.3. Tie the assembly aid down with a PVC tape as shown in the drawing.

5.4. Gently lubricate the outer surface of the protective bag and the core insulation with a thin layer of assembly lubricant. Apply the lubricant layer with the sponge top as shown.

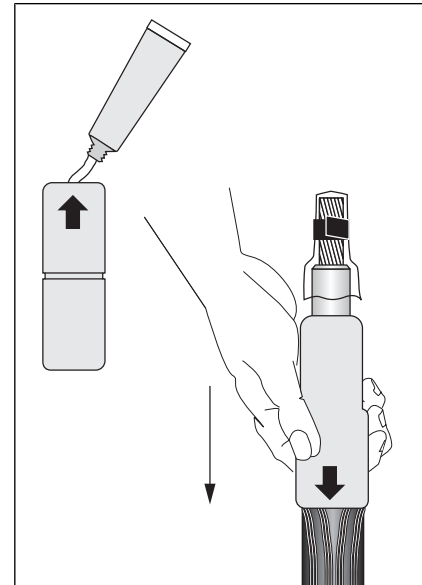


Figure 5.3

5.5. Apply onto the inner surface of the stress cone at the bottom end a 5 cm long sausage of assembly lubricant and spread it evenly over the inner surface. Use assembly lubricant without sponge top.

5.6. Push the stress cone in one sequence with a twisting movement over the assembly aid completely onto the insulation until the inner collar of the stress cone stops at the oversheath cut back of the cable.

5.7. Remove the assembly aid from the conductor.

NOTICE

The arrow on the stress cone should point onto the cable sheath.

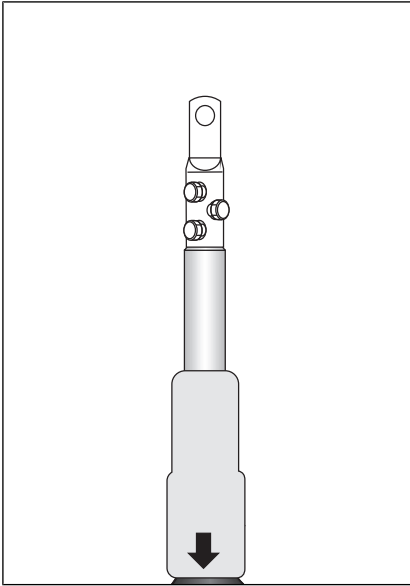


Figure 5.4

5.8. Install the cable lug using a lug fixture.

5.9. Tighten the bolt set alternately in several equal steps until the heads shear off.

Remove any sharp edges.

6 Installation of Connector Body

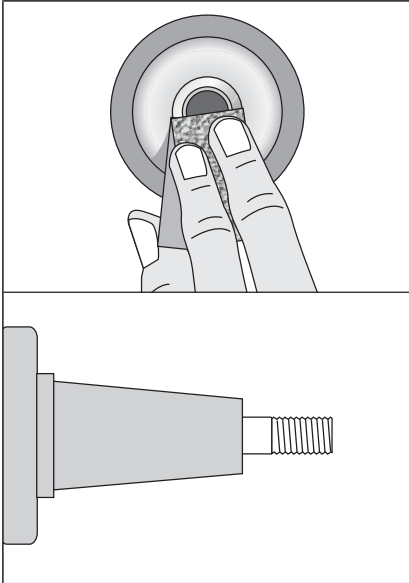


Figure 6.1

6.1. Abrade and clean the contact ring of the bushing thread from residuals such as resin or varnish if any.

6.2. Insert the threaded stud into the bushing and tighten it up with an Allen key (8 mm). Maximum torque: **35 Nm**.

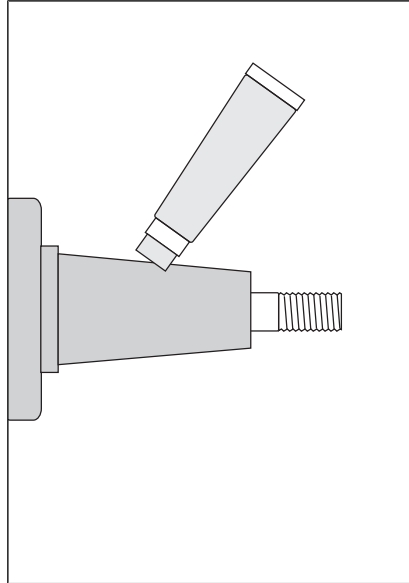


Figure 6.2

6.3. Clean the conical surface of the bushing and lubricate it with the assembly lubricant as shown.

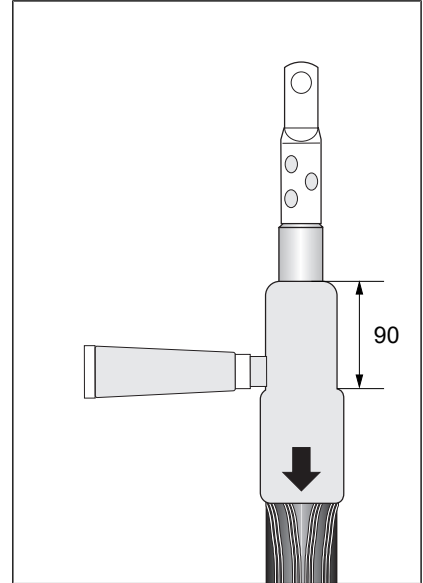


Figure 6.3

6.4. Clean the outer surface of stress cone and apply a thin layer of lubricant onto the outer surface of the stress cone over a length of 90 mm with the sponge top as shown in the drawing.

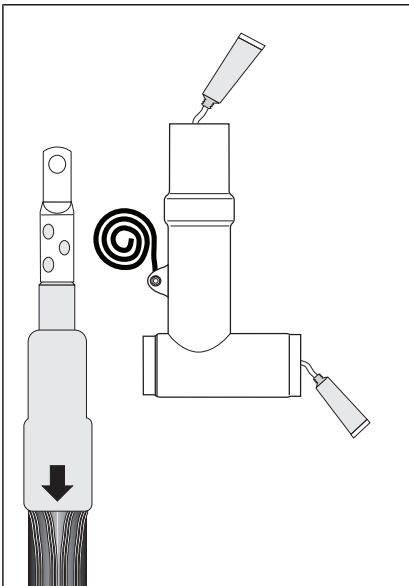


Figure 6.4

6.5. Clean and degrease the bottom and front end of the screened connector body and apply a thin layer of lubricant onto the inner surface without the sponge top as shown.

NOTICE

Use one way glove to evenly lubricate the inner surface at a length of approximately 50 mm.

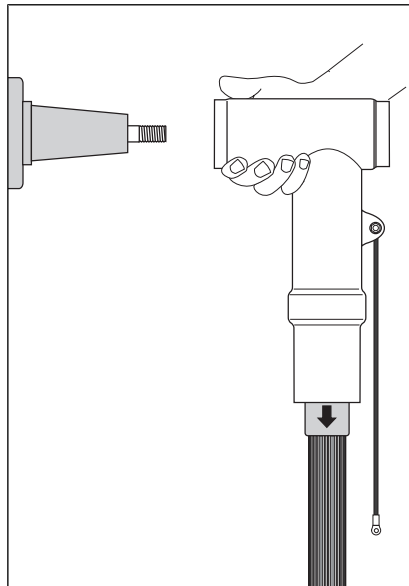


Figure 6.5

6.6. Push screened connector body with no interruption onto the stress cone and hold it.

NOTICE

Continue immediately with the next step.

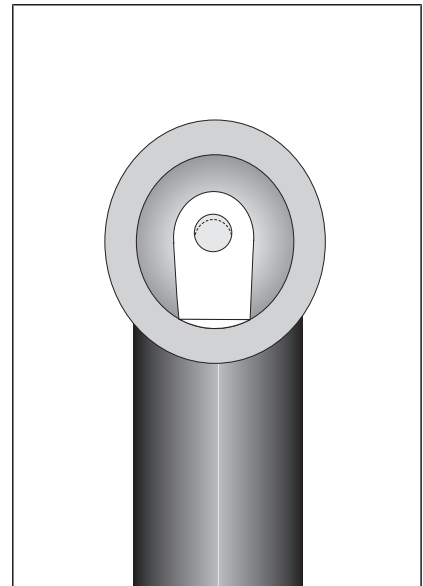


Figure 6.6

6.7. Align the eye of the cable lug with the threaded pin and push the screened connector onto the bushing.

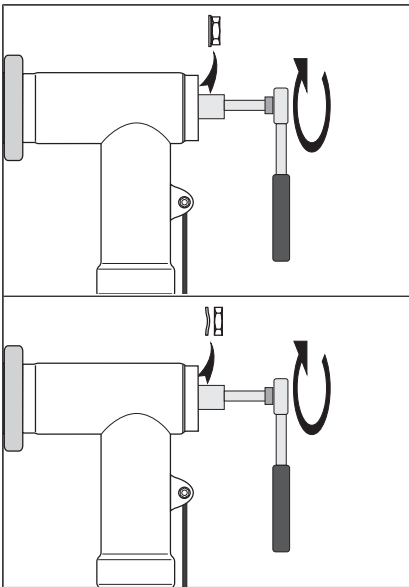


Figure 6.7

6.8. If using a combinut: Insert the combinut. Tighten it onto the stud with a torque wrench (24 mm) to a torque of **30 Nm**.

6.9. If using a washer and hex nut: Insert the spring washer and hex nut. Tighten it onto the stud with a torque wrench (24 mm) to a torque of **30 Nm**.

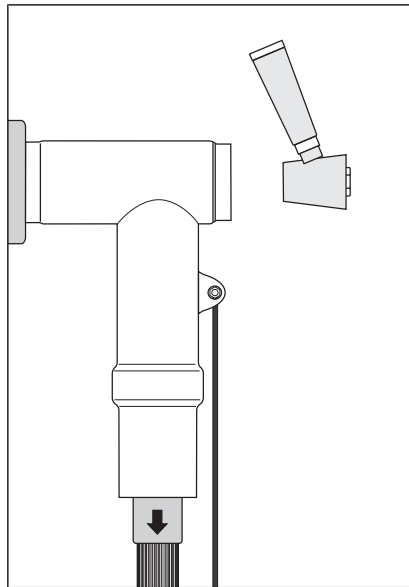


Figure 6.8

6.10. Clean the inner surface of connector back end and apply a thin layer of assembly lubricant. Do the same with the conical interface of the back plug as shown.

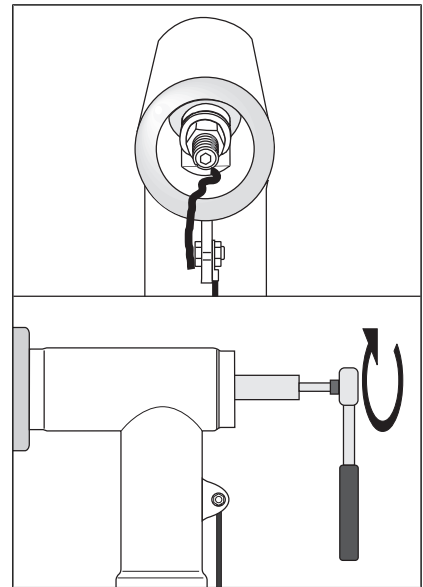


Figure 6.9

6.11. Place a string into the rear entry of the connector as shown.

6.12. Insert the back plug and screw it into place using a spanner (19 mm) at a torque of **30 Nm**.

6.13. Remove the string prior to the last two turns.

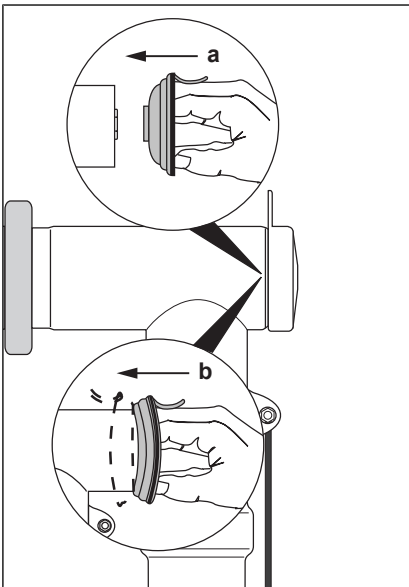


Figure 6.10

6.14. Flip-back the endcap as shown in **detail a**. Position the protruding ring onto test point.

6.15. Flip the endcap into the final position with your finger as shown in **detail b**.

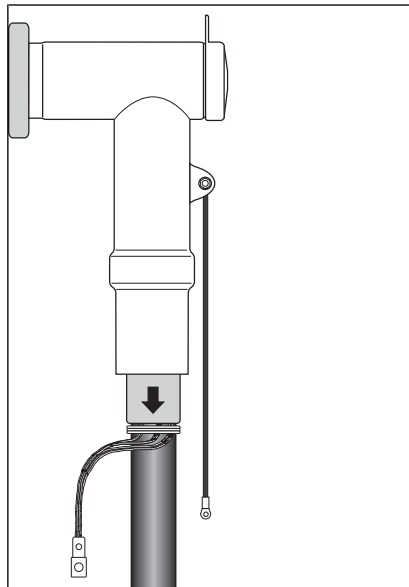


Figure 6.11

6.16. Ensure that the grounding lead is fastened tightly.

6.17. Fix the shielding wires with a wire binder (four layers) at the end of the stress cone. Gather the wires together to form an earth lead. Install at the end of the shielding wires the connection lugs supplied in the kit.

6.18. Connect the cable shield and body ground leads to system's ground.

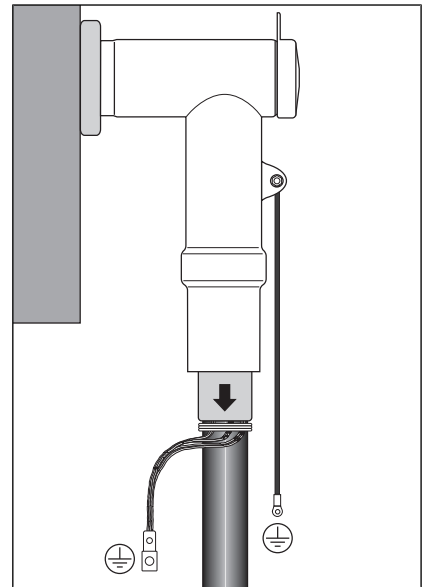


Figure 6.12

Screened separable connector completed.